Scottish Universities Physics Alliance

Draft
Peer Reviewed Publications List

2007

Abraham, E

Heriot-Watt University
3 records

The evolution of paste pressure during stencil printing
Clements, DJ; Desmulliez, MPY; Abraham, E
SOLDERING & SURFACE MOUNT TECHNOLOGY
Volume: 19 Issue: 3 Pages: 9-14 (2007)

Direct and converse magnetoelectic effect in laminate bonded Terfenol-D-PZT composites
Record, P; Popov, C; Fletcher, J; Abraham, E; Huang, Z; Chang, H; Whatmore, RW
SENSORS AND ACTUATORS B-CHEMICAL
Volume: 126 Issue: 1(Sp. Iss. SI) Pages: 344-349 (2007)

MEMS-based packaging of a UV-LED array
Luetzelschwab, M; Weiland, D; Abraham, E; Desmulliez, MPY
MICRO & NANO LETTERS
Volume: 2 Issue: 4 Pages: 99-102 (2007)

Ackemann, T

University of Strathclyde
7 records

Nonlinear lensing mechanisms in a cloud of cold atoms
Labeyrie, G; Gattobigio, GL; Chaneliere, T; Lippi, L; Ackemann, T; Kaiser, R
EUROPEAN PHYSICAL JOURNAL D
Volume: 41 Issue: 2 Pages: 337-348 (2007)

Localized traveling waves in vertical-cavity surface-emitting lasers with frequency-selective optical feedback
Paulau, PV; Scroggie, AJ; Naumenko, A; Ackemann, T; Loiko, NA; Firth, WJ
PHYSICAL REVIEW E
Volume: 75 Issue: 5 Article Number: 056208 (2007)

Analysis of bistability conditions between lasing and nonlasing states for a vertical-cavity surface-emitting laser with frequency-selective optical feedback using an envelope approximation
Naumenko, AV; Loiko, NA; Ackemann, T
PHYSICAL REVIEW A
Volume: 76 Issue: 2 Article Number: 023802 (2007)

Theoretical-experimental study of the vectorial modal properties of polarization-stable multimode grating VCSELs
Debemardi, P; Ostermann, JM; Sondermann, M; Ackemann, T; Bava, GP; Michalzik, R
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 5 Pages: 1340-1348 (2007)

Two-dimensional front dynamics and spatial solitons in a nonlinear optical system
Pesch, M; Lange, W; Gomila, D; Ackemann, T; Firth, WJ; Oppo, GL
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 153902 (2007)

Characteristics of switching dynamics in a semiconductor-based cavity-soliton laser
Tanguy, Y; Ackemann, T; Jager, R
OPTICS EXPRESS
Volume: 15 Issue: 25 Pages: 16773-16780 (2007)

Tunable, narrow-band light source in the 1.25 mu region based on broad-area quantum dot lasers with feedback
Tierno, A; Ackemann, T
APPLIED PHYSICS B-LASERS AND OPTICS
Volume: 89 Issue: 4 Pages: 585-588 (2007)

Current Research

My research interest covers several aspects of "Nonlinear Photonics" in semiconductor-based devices (in particular VCSELs and VECSELs) and samples of laser-cooled atoms. Objectives are the understanding of the complex nonlinear processes determining the performance of photonic devices and lasers, their control, optimisation and applications as well as the utilization of nonlinearities for all-optical processing. Recent interest extends to quantum dot samples.

Ackland, G

The University of Edinburgh
7 records

Development of an interatomic potential for the simulation of phase transformations in zirconium
Mendelev, MI; Ackland, GJ
PHILOSOPHICAL MAGAZINE LETTERS
Volume: 87 Issue: 5 Pages: 349-359 (2007)

Simulation of the interaction between Fe impurities and point defects in V
Mendelev, MI; Han, SW; Son, W; Ackland, GJ; Srolovitz, DJ
PHYSICAL REVIEW B
Volume: 76 Article Number: 214105 (2007)

Strategy bifurcation and spatial inhomogeneity in a simple model of competing sellers
Mitchell, L; Ackland, GJ
EPL
Volume: 79 Issue: 4 Article Number: 048003 (2007)

The equation of state of solid nickel aluminide
Swift, DC; Paisley, DL; McClellan, KJ; Ackland, GJ
PHYSICAL REVIEW B
Volume: 76 Issue: 13 Article Number: 134111 (2007)

Cultural hitchhiking on the wave of advance of beneficial technologies
Ackland, GJ; Signitzer, M; Stratford, K; Cohen, MH
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
Volume: 104 Issue: 21 Pages: 8714-8719 (2007)

Evolving the selfish herd: emergence of distinct aggregating strategies in an individual-based model
Wood, AJ; Ackland, GJ
PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES
Volume: 274 Issue: 1618 Pages: 1637-1642 (2007)

Lattice-switch Monte Carlo simulation for binary hard-sphere crystals
Jackson, AN; Ackland, GJ
PHYSICAL REVIEW E
Volume: 76 Issue: 6 Article Number: 066703 (2007)

Aliotta, M

The University of Edinburgh
2 records

Experimental nuclear astrophysics with radioactive ion beams
Aliotta, M
EUROPEAN PHYSICAL JOURNAL A SPECIAL TOPICS
Volume: 150 Pages: 201-206 (2007)

First hint on a change of the Po-210 alpha-decay half-life in the metal Cu
Raiola, F; Spillane, T; Limata, B; Wang, B; Yan, S; Aliotta, M; Becker, HW; Cruz, J; Fonseca, M; Gialanella, L; Jesus, AP; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 1 Pages: 51-53 (2007)

Current Research

My research interests focus on the study of nuclear reactions relevant to astrophysical phenomena. These include both low-energy stable beam experiments, as well as measurements with radioactive ion beams. The objective is to understand nuclear processes taking place during different stages of stellar evolution, ranging from electron screening effects, relevant to quiescent stages of a star's lifetime, to explosive hydrogen burning, relevant e.g. to novae, supernovae type Ia, and X-ray bursts.

Allen, R

The University of Edinburgh
1 record

Computing stationary distributions in equilibrium and nonequilibrium systems with forward flux sampling
Valeriani, C; Allen, RJ; Morelli, MJ; Frenkel, D; Rein ten Wolde, P
JOURNAL OF CHEMICAL PHYSICS
Volume: 127 Issue: 11-1 Article Number: 114109 (2007)

Andersson, E

University of Strathclyde
2 records

Estimating the expectation values of spin-1/2 observables with finite resources
Brougham, T; Andersson, E
PHYSICAL REVIEW A
Volume: 76 Article Number: 053213 (2007)

Finding the Kraus decomposition from a master equation and vice versa
Andersson, E; Cresser, JD; Hall, MJW
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1695-1716 (2007)

André, P

University of St Andrews
1 record

Tuned light emission from nanoparticles of cadmium chalcogenides and nanostructures in indium nitride
Cheng, G; André, P; Firth, AV; Khanna, PK; Zhou, WZ; Samuel, IDW; Cole-Hamilton, DJ
SYNTHESIS AND REACTIVITY IN INORGANIC METAL-ORGANIC AND NANO-METAL CHEMISTRY
Volume: 37 Issue: 5 Pages: 309-313 (2007)

Current Research

My main research activities focus on nano-colloids and include both properties characterisation and chemical syntheses of metal, semiconductor and magnetic nanoparticles. Relevant applications are related to hybrid optoelectronic devices such as solar cells and LED, medical applications being currently under consideration. Hybrid and core-shell structures based on silver, cadmium and lead selenide, as well as iron-platinum alloy are currently made. Other and past research interests include hybrid organic-inorganic dendrimers, molecular modelling, supercritical fluids, polymers and surfactant solution properties as well as apertureless optical near-field microscopy.

Annand, JRM

University of Glasgow
8 records including 1 collaboration: MAX-LAB NUCLEAR PHYSICS Working Group (listed on p.149)

Compton-scattering cross section on the proton at high momentum transfer
Danagoulian, A; Mamyan, VH; Roedelbronn, M; Aniol, KA; Annand, JRM; Bertin, PY; Bimbot, L; Bosted, P; Calarco, JR; Camsonne, A; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 15 Article Number: 152001 (2007)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Double pion photoproduction off Ca-40
Bloch, F; Ahrens, J; Annand, JRM; Beck, R; Fog, LS; Hornidge, D; Janssen, S; Kotulla, M; Krusche, B; McGeorge, JC; MacGregor, IJD; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 2 Pages: 219-228 (2007)

Search for Sigma(0)(5),N-5(0), and Theta(++) pentaquark states
Qiang, Y; Annand, J; Arrington, J; Azimov, YI; Bertozzi, W; Cates, G; Chen, JP; Choi, S; Chudakov, E; Cusanno, F; de Jager, CW; *et al.*
Jefferson Lab Hall A Collaboration
PHYSICAL REVIEW C
Volume: 75 Issue: 5 Article Number: 055208 (2007)

Investigation of proton-proton short-range correlations via the C-12(e,e'pp) reaction
Shneor, R; Monaghan, P; Subedi, R; Anderson, BD; Aniol, K; Annand, J; Arrington, J; Benaoum, H; Benmokhtar, F; Bertin, P; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 7 Article Number: 072501 (2007)

First measurement of the helicity dependence for the gamma p -> p pi(+)pi(-) reaction
Ahrens, J; Altieri, S; Annand, JRM; Arends, HJ; Beck, R; Blackston, MA; Bradtke, C; Braghieri, A; d'Hose, N; Dutz, H; Fix, A; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 34 Issue: 1 Pages: 11-21 (2007)

Arnold, A

University of Strathclyde
1 record

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Öhberg, P; Arnold, AS
OPTICS EXPRESS
Volume: 15 Pages: 8619 (2007)

Bacon, DJ

The University of Edinburgh
3 records

Probing dark energy with the shear-ratio geometric test
Taylor, AN; Kitching, TD; Bacon, DJ; Heavens, AF
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 4 Pages: 1377-1403 (2007)

Cosmological constraints from COMBO-17 using 3D weak lensing
Kitching, TD; Heavens, AF; Taylor, AN; Brown, ML; Meisenheimer, K; Wolf, C; Gray, ME; Bacon, DJ
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 2 Pages: 771-778 (2007)

Weak gravitational shear and flexion with polar shapelets
Massey, R; Rowe, B; Refregier, A; Bacon, DJ; Berge, J
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 1 Pages: 229-245 (2007)

Badnell, N

University of Strathclyde
9 records

Electron-impact excitation of neutral boron using the R-matrix with the pseudostates method
Ballance, CP; Griffin, DC; Berrington, KA; Badnell, NR
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS
Volume: 40 Issue: 6 Pages: 1131-1139 (2007)

The time-dependent close-coupling method for atomic and molecular collision processes
Pindzola, MS; Robicheaux, F; Loch, SD; Berengut, JC; Topcu, T; Colgan, J; Foster, M; Griffin, DC; Ballance, CP; Schultz, DR; *et al.*
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS
Volume: 40 Issue: 7 Pages: R39-R60 (2007)

Atomic data from the IRON project LXIII. Electron-impact excitation of Fe19+ up to n=4
Witthoeft, MC; Del Zanna, G; Badnell, NR
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 2 Pages: 763-770 (2007)

Dielectronic recombination data for dynamic finite-density plasmas XII. The helium isoelectronic sequence
Bautista, MA; Badnell, NR
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 2 Pages: 755-762 (2007)

Atomic data from the IRON project - LXIV. Radiative transition rates and collision strengths for CaII
Melendez, M; Bautista, MA; Badnell, NR
ASTRONOMY & ASTROPHYSICS
Volume: 469 Issue: 3 Pages: 1203-1209 (2007)

Dielectronic recombination of Fe xv forming Fe xiv: Laboratory measurements and theoretical calculations
Lukic, DV; Schnell, M; Savin, DW; Brandau, C; Schmidt, EW; Bohm, S; Muller, A; Schippers, S; Lestinsky, M; Sprenger, F; Wolf, A; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 664 Issue: 2 Pages: 1244-1252 (2007)

R-matrix electron-impact excitation calculations along the F-like iso-electronic sequence
Witthoeft, MC; Whiteford, AD; Badnell, NR
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS
Volume: 40 Issue: 15 Pages: 2969-2993 (2007)

Steps toward dielectronic recombination of argon-like ions: A revisited theoretical investigation Of SC3+ and Ti4+
Nikolic, D; Gorczyca, TW; Fu, J; Savin, DW; Badnell, NR
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS
Volume: 261 Issue: 1-2 Pages: 145-148 (2007)

Dielectronic recombination data for dynamic finite-density plasmas XIII. The magnesium isoelectronic sequence
Altun, Z; Yumak, A; Yavuz, I; Badnell, NR; Loch, SD; Pindzola, MS
ASTRONOMY & ASTROPHYSICS
Volume: 474 Issue: 3 Pages: 1051-1059 (2007)

Baker, H

Heriot-Watt University
5 records

A planar waveguide Nd : YAG laser using active Q-switching of a hybrid unstable resonator
Xu, JQ; Thomson, IJ; Valera, JDR; Baker, HJ; Russell, AB; Hall, DR
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 3 Pages: 638-646 (2007)

Laser drilling of copper foils for electronics applications
Moorhouse, CJ; Villarreal, FJ; Baker, HJ; Hall, DR
IEEE TRANSACTIONS ON COMPONENTS AND PACKAGING TECHNOLOGIES
Volume: 30 Issue: 2 Pages: 254-263 (2007)

Mode competition in acousto-optically Q-switched planar waveguide lasers
Xu, JQ; Baker, HJ; Hall, DR
OPTICS AND LASER TECHNOLOGY
Volume: 39 Issue: 4 Pages: 814-820 (2007)

Pump uniformity and temperature profile measurements in a planar waveguide Nd : YAG laser by a beam deflection method
Sun, F; Baker, HJ; Russell, AB; Valera, JD; Hall, DR
IEEE JOURNAL OF QUANTUM ELECTRONICS
Volume: 43 Issue: 7-8 Pages: 669-675 (2007)

Neural progenitor cell transplantation and imaging in a large animal model
Wang, L; Martin, DR; Baker, HJ; Zinn, KR; Kappes, JC; Ding, H; Gentry, AS; Harper, S; Snyder, EY; Cox, NR
NEUROSCIENCE RESEARCH
Volume: 59 Issue: 3 Pages: 327-340 (2007)

Ball, R

The University of Edinburgh
2 records

BFKL next-to-next-to-leading order
Marzani, S; Ball, RD; Falgari, P; Forte, S
NUCLEAR PHYSICS B
Volume: 783 Issue: 1-2 Pages: 143-175 (2007)

Quantifying evidence for candidate gene polymorphisms: Bayesian analysis combining sequence-specific and quantitative trait loci colocation information
Ball, RD
GENETICS
Volume: 177 Issue: 4 Pages: 2399-2416 (2007)

Barnett, SM

University of Strathclyde
9 records

Barnett, SM; Vaccaro, JA.
THE QUANTUM PHASE OPERATOR, A REVIEW
Taylor and Francis (2007)

Quantum formulation of fractional orbital angular momentum
Gotte, JB; Franke-Arnold, S; Zambrini, R; Barnett, SM
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1723-1738 (2007)

The damped Jaynes-Cummings model
Barnett, SM; Jeffers, J
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 13-15 Pages: 2033-2048 (2007)

Maximum confidence measurements and their optical implementation
Croke, S; Mosley, PJ; Barnett, SM; Walmsley, IA
EUROPEAN PHYSICAL JOURNAL D
Volume: 41 Issue: 3 Pages: 589-598 (2007)

Frictional quantum decoherence
Bellomo, B; Barnett, SM; Jeffers, J
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL
Volume: 40 Issue: 31 Pages: 9437-9453 (2007)

On the dragging of light by a rotating medium
Gotte, JB; Barnett, SM; Padgett, M
PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES
Volume: 463 Issue: 2085 Pages: 2185-2194 (2007)

Angular momentum of multimode and polarization patterns
Zambrini, R; Barnett, SM
OPTICS EXPRESS
Volume: 15 Issue: 23 Pages: 15214-15227 (2007)

Elementary excitations of a Bose-Einstein condensate in an effective magnetic field
Murray, DR; Barnett, SM; Ohberg, P; Gomila, D
PHYSICAL REVIEW A
Volume: 76 Issue: 5 Article Number: 053626 (2007)

Polarization rotation of slow light with orbital angular momentum in ultracold atomic gases
Ruseckas, J; Juzeliunas, G; Ohberg, P; Barnett, SM
PHYSICAL REVIEW A
Volume: 76 Issue: 5 Article Number: 053822 (2007)

Barton, JS

Heriot-Watt University
5 records

Fibre optics in palladium-based hydrogen sensing
Maier, RRJ; Jones, BJS; Barton, JS; McCulloch, S; Allsop, T; Jones, JDC; Bennion, I
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S45-S59 (2007)

Design and fabrication of dielectric diaphragm pressure sensors for applications to shock wave measurement in air
Parkes, W; Djakov, V; Barton, JS; Watson, S; MacPherson, WN; Stevenson, JTM; Dunare, CC
JOURNAL OF MICROMECHANICS AND MICROENGINEERING
Volume: 17 Issue: 7 Pages: 1334-1342 (2007)

Thermal sensitivity of tellurite and germanate optical fibers
Li, HX; Lousteau, J; MacPherson, WN; Jiang, X; Bookey, HT; Barton, JS; Jha, A; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8857-8863 (2007)

Ultrafast-laser inscription of a three dimensional fan-out device for multicore fiber coupling applications
Thomson, RR; Bookey, HT; Psaila, ND; Fender, A; Campbell, S; MacPherson, WN; Barton, JS; Reid, DT; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11691-11697 (2007)

Multiple rare earth emissions in a multicore tellurite fiber with a single pump wavelength
Bookey, HT; Lousteau, J; Jha, A; Gayraud, N; Thomson, RR; Psaila, ND; Li, H; MacPherson, WN; Barton, JS; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 26 Pages: 17554-17561 (2007)

Bates, R

University of Glasgow
9 records including 2 collaborations: ATLAS Collaboration (listed on p.134)

GaN as a radiation hard particle detector
Grant, J; Bates, R; Cunningham, W; Blue, A; Melone, J; McEwan, F; Vaitkus, J; Gaubas, E; O'Shea, V
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 576 Issue: 1 Pages: 60-65 (2007)

Simulation results from double-sided 3-D detectors
Pennicard, D; Pellegrini, G; Lozano, M; Bates, R; Parkes, C; O'Shea, V; Wright, V
IEEE TRANSACTIONS ON NUCLEAR SCIENCE
Volume: 54 Issue: 4 Pages: 1435-1443 (2007)

Simulation and test of 3D silicon radiation detectors
Fleta, C; Pennicard, D; Bates, R; Parkes, C; Pellegrini, G; Lozano, M; Wright, V; Boscardin, M; Betta, GFD; Piemonte, C; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 579 Issue: 2 Pages: 642-647 (2007)

Characterisation of Vanilla - A novel active pixel sensor for radiation detection
Blue, A; Bates, R; Laing, A; Maneuski, D; O'Shea, V; Clark, A; Prydderch, M; Turchetta, R; Arvanitis, C; Bohndiek, S
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 581 Issue: 1-2 Pages: 287-290 (2007)

RD50 status: Developing radiation tolerant materials for ultra radiation-hard tracking detectors
Bates, R
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 581 Issue: 1-2 Pages: 314-317 (2007)

Recent developments of CERN RD39 cryogenic tracking detectors collaboration - CERN RD39 Collaboration
Rouby, X; Anbinderis, P; Anbinderis, T; D'Ambrosio, N; Bates, R; de Boer, W; Bol, H; Borchi, E; Bruzzi, M; Buontempo, S; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 99-103 (2007)

Recombination characteristics of the proton and neutron irradiated semi-insulating GaN structures
Gaubas, E; Vaitkus, J; Kazlauskas, K; Zukauskas, A; Grant, J; Bates, R; O'shea, V; Strittmatter, A; Bimberg, D; Gibart, P
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 181-184 (2007)

Bates, S

The University of Edinburgh
Zero records for the year 2007

Baumberger, F

University of St Andrews
4 records

Angle-resolved photoemission studies of lattice polaron formation in the cuprate Ca2CuO2Cl2
Shen, KM; Ronning, F; Meevasana, W; Lu, DH; Ingle, NJC; Baumberger, F; Lee, WS; Miller, LL; Kohsaka, Y; Azuma, M; Takano, M; Takagi, H; Shen, ZX
PHYSICAL REVIEW B
Volume: 75 Issue: 7 Article Number: 075115 (2007)

Ca3Ru2O7: Electronic instability and extremely strong quasiparticle renormalisation
Kikugawa, N; Rost, A; Baumberger, F; Ingle, NJC; Hossain, MA; Meevasana, W; Shen, KM; Lu, DH; Damascellic, A; Mackenzie, AP; Hussain, Z; Shen, ZX
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS
Volume: 310 Issue: 2 Pages: 1027-1029 (2007)

Electronic band structure and Kondo coupling in YbRh2Si2
Wigger, GA; Baumberger, F; Shen, ZX; Yin, ZP; Pickett, WE; Maquilon, S; Fisk, Z
PHYSICAL REVIEW B
Volume: 76 Issue: 3 Article Number: 035106 (2007)

Evolution of the fermi surface and quasiparticle renormalization through a van hove singularity in Sr2-yLayRuO4
Shen, KM; Kikugawa, N; Bergemann, C; Balicas, L; Baumberger, F; Meevasana, W; Ingle, NJC; Maeno, Y; Shen, ZX; Mackenzie, AP
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 18 Article Number: 187001 (2007)

Berera, A
The University of Edinburgh
4 records

Large transient states in quantum field theory
Berera, A
NUCLEAR PHYSICS A
Volume: 792 Issue: 3-4 Pages: 306-340 (2007)

Warm inflation dynamics in the low temperature regime
Bastero-Gil, M; Berera, A
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 043515 (2007)

Local approximations for effective scalar field equations of motion
Berera, A; Moss, IG; Ramos, RO
PHYSICAL REVIEW D
Volume: 76 Issue: 8 Article Number: 083520 (2007)

Gauge symmetry and Slavnov-Taylor identities for randomly stirred fluids
Berera, A; Hochberg, D
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 25 Article Number: 254501 (2007)

Best, P
The University of Edinburgh
7 records

0.5 Mpc-scale extended X-ray emission in the z=2.48 radio galaxy 4C 23.56
Johnson, O; Almaini, O; Best, PN; Dunlop, J
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 1 Pages: 151-156 (2007)

How special are brightest group and cluster galaxies ?
von der Linden, A; Best, PN; Kauffmann, G; White, SDM
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 3 Pages: 867-893 (2007)

On the prevalence of radio-loud active galactic nuclei in brightest cluster galaxies: implications for AGN heating of cooling flows
Best, PN; von der Linden, A; Kauffmann, G; Heckman, TM; Kaiser, CR
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 3 Pages: 894-908 (2007)

GMRT observations of the XMM large scale structure survey field
Tasse, C; Rottgering, HJA; Best, PN; Cohen, AS; Pierre, M; Wilman, R
ASTRONOMY & ASTROPHYSICS
Volume: 471 Issue: 3 Pages: 1105-1116 (2007)

A sample of mJy radio sources at 1.4 GHz in the Lynx and Hercules fields - I. Radio imaging, multicolour photometry and spectroscopy
Rigby, EE; Snellen, IAG; Best, PN
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1449-1466 (2007)

Environmental dependence of active galactic nuclei activity in the supercluster A901/2
Gilmour, R; Gray, ME; Almaini, O; Best, P; Wolf, C; Meisenheimer, K; Papovich, C; Bell, E
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1467-1487 (2007)

Luminosity function, sizes and FR dichotomy of radio-loud AGN
Kaiser, CR; Best, PN
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 4 Pages: 1548-1560 (2007)

Betouras, JJ

University of St Andrews
2 records

Charge degrees in the quarter-filled checkerboard lattice
Pollmann, F; Betouras, JJ; Runge, E; Fulde, P
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS
Volume: 310 Issue: 2 Pages: 966-968 (2007)

Multiferroicity induced by dislocated spin-density waves
Betouras, JJ; Giovannetti, G; van Den Brink, J
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 25 Article Number: 257602 (2007)

Current Research

My research interests are on strongly correlated electron physics as well as mesoscopic physics. More specifically at the moment I am working on problems (i) of the theory of magnets (surface transitions of a triple-q antiferromagnet, frustrated magnetic systems, ferromagnetism close to a quantum critical point), (ii) multiferroics (materials where magnetic order is also related to ferroelctricity). In the past I have worked on high-Tc and other unconventional superconductivity, the physics of edge states of a quantum Hall system, and Wigner crystallization.

Bingham, R

University of Strathclyde
8 records

Plasma wakes driven by neutrinos, photons and electron beams
Bingham, R; Silvat, LO; Mendonca, JT; Shukla, PK; Mori, WB; Serbeto, A
INTERNATIONAL JOURNAL OF MODERN PHYSICS B
Volume: 21 Issue: 3-4 Pages: 343-350 (2007)

dHybrid: A massively parallel code for hybrid simulations of space plasmas
Gargate, L; Bingham, R; Fonseca, RA; Silva, LO
COMPUTER PHYSICS COMMUNICATIONS
Volume: 176 Issue: 6 Pages: 419-425 (2007)

White-light parametric instabilities in plasmas
Santos, JE; Silva, LO; Bingham, R
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 23 Article Number: 235001 (2007)

Dipolar radiation from spinning dust grains coupled to an electromagnetic wave
Guerreiro, A; Eloy, M; Mendonca, JT; Bingham, R
JOURNAL OF PLASMA PHYSICS
Volume: 73 Pages: 555-563 (2007)

Hamiltonian formulation of direct laser acceleration in vacuum
Eloy, M; Guerreir, A; Mendonca, JT; Bingham, R
JOURNAL OF PLASMA PHYSICS
Volume: 73 Pages: 635-647 (2007)

Non-Spitzer return currents in intense laser-plasma interactions
Sherlock, M; Bell, AR; Kingham, RJ; Robinson, APL; Bingham, R
PHYSICS OF PLASMAS
Volume: 14 Issue: 10 Article Number: 102708 (2007)

Reflection of an electron beam by a photon mirror
Mendonca, JT; Silva, LO; Bingham, R
JOURNAL OF PLASMA PHYSICS
Volume: 73 Pages: 627-634 (2007)

Spontaneous generation of self-organized solitary wave structures at earth's magnetopause
Trines, R; Bingham, R; Dunlop, MW; Vaivads, A; Davies, JA; Mendonca, JT; Silva, LO; Shukla, PK
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 20 Article Number: 205006 (2007)

Binoth, T

The University of Edinburgh
2 records

Algebraic evaluation of rational polynomials in one-loop amplitudes
Binoth, T; Guillet, JP; Heinrich, G
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 2 Article Number: 013 (2007)

Six-photon amplitudes
Binoth, T; Heinrich, G; Gehrmann, T; Mastrolia, P
PHYSICS LETTERS B
Volume: 649 Issue: 5-6 Pages: 422-426 (2007)

Birch, DJS

University of Strathclyde
2 records

Single molecule level detection of allophycocyanin by surface enhanced resonance Raman scattering
McGuinness, CD; Macmillan, AM; Karolin, J; Smith, WE; Graham, D; Pickup, JC; Birch, DJS
ANALYST
Volume: 132 Issue: 7 Pages: 633-634 (2007)

Human serum albumin and quercetin interactions monitored by time-resolved fluorescence: evidence for enhanced discrete rotamer conformations
Rolinski, OJ; Martin, A; Birch, DJS
JOURNAL OF BIOMEDICAL OPTICS
Volume: 12 Issue: 3 Article Number: 034013 (2007)

Current Research

Nanometrology of molecular dynamics and structure using advanced spectroscopic and microscopic techniques combined with bespoke nano-structured environments. For example, the fluorescence lifetime photophysics of ensembles and single molecules combined with surface enhanced resonance Raman studies to determine dynamical structure and distance as paths towards making molecular nano-movies. This includes characterisation and control of simulated natural environments like hydrated sol-gel nanopores and nanoparticles. By detecting medically important metabolites, such as glucose, proteins, metal ions etc down to the single molecule level under controlled conditions we aim to better understand the fundamental building blocks of biomolecular interaction that underpins life sciences and medicine.

Blythe, R

The University of Edinburgh
4 records

Stochastic models of evolution in genetics, ecology and linguistics
Blythe, RA; McKane, AJ
JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT
Article Number: P07018 (2007)

The propagation of a cultural or biological trait by neutral genetic drift in a subdivided population
Blythe, RA
THEORETICAL POPULATION BIOLOGY
Volume: 71 Issue: 4 Pages: 454-472 (2007)

Exact solution of the multi-allelic diffusion model
Baxter, GJ; Blythe, RA; McKane, AJ
MATHEMATICAL BIOSCIENCES
Volume: 209 Issue: 1 Pages: 124-170 (2007)

Nonequilibrium steady states of matrix-product form: a solver's guide
Blythe, RA; Evans, MR
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL
Volume: 40 Issue: 46 Pages: R333-R441 (2007)

Bonnell, IA

University of St Andrews
6 records

Clumpy and fractal shocks, and the generation of a velocity dispersion in molecular clouds
Dobbs, CL; Bonnell, IA
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 3 Pages: 1115-1124 (2007)

Ionization-induced star formation - I. The collect-and-collapse model
Dale, JE; Bonnell, IA; Whitworth, AP
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Volume: 375 Issue: 4 Pages: 1291-1298 (2007)

Spiral shocks and the formation of molecular clouds in a two-phase medium
Dobbs, CL; Bonnell, IA
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
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Ionization-induced star formation - II. External irradiation of a turbulent molecular cloud
Dale, JE; Clark, PC; Bonnell, IA
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Volume: 377 Issue: 2 Pages: 535-544 (2007)

Clump lifetimes and the initial mass function
Clark, PC; Klessen, RS; Bonnell, IA
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 1 Pages: 57-62 (2007)

The James Clerk Maxwell telescope legacy survey of nearby star-forming regions in the Gould belt
Ward-Thompson, D; Di Francesco, J; Hatchell, J; Hogerheijde, MR; Nutter, D; Bastien, P; Basu, S; Bonnell, IA; Bowey, J; Brunt, C; *et al.*
PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF THE PACIFIC
Volume: 119 Issue: 858 Pages: 855-870 (2007)

Boyle, P

The University of Edinburgh
3 records including 2 collaborations: RBC Collaboration; UKQCD Collaboration (listed on p.150)

Hadronic form factors in lattice QCD at small and vanishing momentum transfer
Boyle, PA; Flynn, JM; Juttner, A; Sachrajda, CT; Zanotti, JM
JOURNAL OF HIGH ENERGY PHYSICS
Article Number: 703005 (2007)

Branford, D

The University of Edinburgh
12 records including 10 collaborations: CLAS Collaboration (listed on p.146)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Brown, CTA

University of St Andrews
5 records

Low-loss quantum-dot-based saturable absorber for efficient femtosecond pulse generation
Lagatsky, AA; Bain, FM; Brown, CTA; Sibbett, W; Livshits, DA; Erbert, G; Rafailov, EU
APPLIED PHYSICS LETTERS
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Optical Separation of Cells on Potential Energy Landscapes: Enhancement With Dielectric Tagging
Dholakia, K; Lee, WM; Paterson, L; MacDonald, MP; McDonald, R; Andreev, I; Mthunzi, P; Brown, CTA; Marchington, RF; Riches, AC
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Efficient doubling of femtosecond pulses in aperiodically and periodically poled KTP crystals
Lagatsky, AA; Brown, CTA; Sibbett, W; Holmgren, SJ; Canalias, C; Pasiskevicius, V; Laurell, F; Rafailov, EU
OPTICS EXPRESS
Volume: 15 Issue: 3 Pages: 1155-1160 (2007)

Two-photon ablation with 1278 nm laser radiation
Fischer, P; McWilliam, A; Paterson, L; Brown, CTA; Sibbett, W; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S19-S23 (2007)

Femtosecond cellular transfection using a nondiffracting light beam
Tsampoula, X; Garces-Chavez, V; Comrie, M; Stevenson, DJ; Agate, B; Brown, CTA; Gunn-Moore, F; Dholakia, K
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 5 Article Number: 053902 (2007)

Brown, JC

University of Glasgow
3 records

Birth and evolution of a dense coronal loop in a complex flare region
Bone, L; Brown, JC; Fletcher, L; Veronig, A; White, S
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Hard X-ray spectra and positions of solar flares observed by RHESSI: photospheric albedo, directivity and electron spectra
Kasparova, J; Kontar, EP; Brown, JC
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Electron-electron bremsstrahlung emission and the inference of electron flux spectra in solar flares
Kontar, EP; Emslie, AG; Massone, AM; Piana, M; Brown, JC; Prato, M
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Volume: 670 Issue: 1 Pages: 857-861 (2007)

Bull, CL

The University of Edinburgh
1 record

Charge transfer in silicon clathrates studied by Compton scattering
Volmer, M; Sternemann, C; Tse, JS; Buslaps, T; Hiraoka, N; Bull, CL; Gryko, J; McMillan, PF; Paulus, M; Tolan, M
PHYSICAL REVIEW B
Volume: 76 Issue: 23 Article Number: 233104 (2007)

Buller, GS

Heriot-Watt University
7 records

Enhanced performance photon-counting time-of-flight sensor
Warburton, RE; McCarthy, A; Wallace, AM; Hernandez-Marin, S; Cova, S; Lamb, RA; Buller, GS
OPTICS EXPRESS
Volume: 15 Issue: 2 Pages: 423-429 (2007)

Passive optical network approach to gigahertz-clocked multiuser quantum key distribution
Fernandez, V; Collins, RJ; Gordon, KJ; Townsend, PD; Buller, GS
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Single photon sources based upon single quantum dots in semiconductor microcavity pillars
Timpson, JA; Sanvitto, D; Daraei, A; Guimaraes, PSS; Vinck, H; Lam, S; Whittaker, DM; Skolnick, MS; Fox, AM; Hu, CY; Ho, YLD; *et al.*
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 2-3 Pages: 453-465 (2007)

Low timing jitter detector for gigahertz quantum key distribution
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Volume: 43 Issue: 3 Pages: 180-182 (2007)

Ranging and three-dimensional imaging using time-correlated single-photon counting and point-by-point acquisition
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Integrating optics and microfluidics for time-correlated single-photon counting in lab-on-a-chip devices
Cleary, A; Glidle, A; Laybourn, PJR; Garcia-Blanco, S; Pellegrini, S; Helfter, C; Buller, GS; Aitchison, JS; Cooper, JM
APPLIED PHYSICS LETTERS
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Subcentimeter depth resolution using a single-photon counting time-of-flight laser ranging system at 1550 nm wavelength
Warburton, RE; McCarthy, A; Wallace, AM; Hernandez-Marin, S; Hadfield, RH; Nam, SW; Buller, GS
OPTICS LETTERS
Volume: 32 Issue: 15 Pages: 2266-2268 (2007)

Burns, D

University of Strathclyde
6 records

High performance 2.2 um optically-pumped vertical external-cavity surface-emitting laser
Hopkins, JM; Preston, RD; Maclean, AJ; Calvez, S; Sun, H; Ng, J; Steer, M; Hopkinson, M; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1677-1683 (2007)

Intracavity diamond heatspreaders in lasers: the effects of birefringence
Loon, FV; Kemp, AJ; Maclean, AJ; Calvez, S; Hopkins, JM; Hastie, JE; Dawson MD; Burns, D
OPTICS EXPRESS
Volume: 14 Issue: 20 Pages: 9250-9260 (2007)

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson, MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1669-1676 (2007)

Pulsed pumping of semiconductor disk lasers
Hempler, N; Hopkins, JM; Kemp, AJ; Schulz, N; Rattunde, M; Wagner, J; Dawson, MD; Burns, D
OPTICS EXPRESS
Volume: 15 Issue: 6 Pages: 3247-3256 (2007)

Tunable, single-frequency, diode-pumped 2.3 mu VECSEL
Hopkins, JM; Maclean, AJ; Burns, D; Riis, E; Schulz, N; Rattunde, M; Manz, C; Kohler, K; Wagner, J
OPTICS EXPRESS
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Measurement of white-light supercontinuum beam properties from a photonic crystal fibre using a laser scanning confocal microscope
Esposito, E; Harris, J; Burns, D; McConnell, G
MEASUREMENT SCIENCE & TECHNOLOGY
Volume: 18 Issue: 8 Pages: 2609-2615 (2007)

Bussey, P

University of Glasgow
55 records including 53 collaborations: CDF Collaboration (listed on p.142): ZEUS Collaboration (listed on p.151)

QCD physics with ZEUS and H1 at HERA
Bussey, PJ
MODERN PHYSICS LETTERS A
Volume: 22 Issue: 5 Pages: 317-332 (2007)

Observation of WZ production
Abulencia, A; Adelman, J; Affolder, T; Akimoto, T; Albrow, MG; Ambrose, D; Amerio, S; Amidei, D; Anastassov, A; Anikeev, K; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 16 Article Number: 161801 (2007)

Buttar, C

University of Glasgow
10 records including 6 collaborations: ATLAS Collaboration (listed on p.134): HARP Collaboration (listed on p.147)

Performance of the first Delta OSI microstrip dosimeter prototype in the characterization of a clinical accelerator
Redondo-Fernandez, I; Buttar, C; Walsh, S; Manolopoulos, S; Homer, JM; Young, S; Conway, J
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 573 Issue: 1-2 Pages: 141-144 (2007)

Prediction for minimum bias and the underlying event at LHC energies
Moraes, A; Buttar, C; Dawson, I
EUROPEAN PHYSICAL JOURNAL C
Volume: 50 Issue: 2 Pages: 435-466 (2007)

Progress with vertex detector sensors for the International Linear Collider
Worm, S; Banda, Y; Bowdery, C; Buttar, C; Clarke, P; Cussans, D; Damerell, C; Davies, G; Devetak, E; Fopma, J; Foster, B; *et al.*
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Volume: 582 Issue: 3 Pages: 839-842 (2007)

Recent developments of CERN RD39 cryogenic tracking detectors collaboration - CERN RD39 Collaboration
Rouby, X; Anbinderis, P; Anbinderis, T; D'Ambrosio, N; Bates, R; de Boer, W; Bol, H; Borchi, E; Bruzzi, M; Buontempo, S; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 99-103 (2007)

Cagnoli, G

University of Glasgow
8 records including 7 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Titania-doped tantala/silica coatings for gravitational-wave detection
Harry, GM; Abernathy, MR; Becerra-Toledo, AE; Armandula, H; Black, E; Dooley, K; Eichenfield, M; Nwabugwu, C; Villar, A; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 2 Pages: 405-415 (2007)

Calvez, S

University of Strathclyde
5 records

High performance 2.2 um optically-pumped vertical external-cavity surface-emitting laser
Hopkins, JM; Preston, RD; Maclean, AJ; Calvez, S; Sun, H; Ng, J; Steer, M; Hopkinson, M; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1677-1683 (2007)

Stabilization of a semiconductor disk laser using an intra-cavity high reflectivity grating
Giet, S; Lee, CL; Calvez, S; Dawson, MD; Destouches, N; Pommier, JC; Parriaux, O
OPTICS EXPRESS
Volume: 15 Issue: 25 Pages: 16520-16526 (2007)

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson, MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1669-1676 (2007)

Microlensed microchip VECSEL
Laurand, N; Lee, CL; Gu, E; Hastie, JE; Calvez, S; Dawson, MD
OPTICS EXPRESS
Volume: 15 Issue: 15 Pages: 9341-9346 (2007)

Tunable single-mode fiber-VCSEL using an intracavity polymer microlens
Laurand, N; Guilhabert, B; Gu, E; Calvez, S; Dawson, MD
OPTICS LETTERS
Volume: 32 Issue: 19 Pages: 2831-2833 (2007)

Current Research

Stephane is Associate Team Leader (full lecturer equivalent) at the Institute of Photonics. He graduated in Optics and Optoelectronics in 1998 from the Ecole Nationale Superieure de Physique de Marseille (ENSPM, Marseille, France) and received his PhD in June 2002 from the Université de Franche Comté for his work on fibre lasers and LiNbO3 integrated optics. He joined the Institute of Photonics in December 2000 where his primary research interests focus on novel semiconductor materials, vertical cavity devices and their applications. He is the Chair of the Scottish Chapter of IEEE/LEOS and was Vice Chair in 2005-2007.

Cameron, AC

University of St Andrews
14 records

Magnetic activity on AB Doradus: temporal evolution of star-spots and differential rotation from 1988 to 1994
Jeffers, SV; Donati, JF; Cameron, AC
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 2 Pages: 567-583 (2007)

WASP-1b and WASP-2b: two new transiting exoplanets detected with SuperWASP and SOPHIE
Cameron, AC; Bouchy, F; Hebrard, G; Maxted, P; Pollacco, D; Pont, F; Skillen, I; Smalley, B; Street, RA; West, RG; Wilson, DM; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 3 Pages: 951-957 (2007)

New periodic variable stars coincident with ROSAT sources discovered using SuperWASP
Norton, AJ; Wheatley, PJ; West, RG; Haswell, CA; Street, RA; Cameron, AC; Christian, DJ; Clarkson, WI; Enoch, B; Gallaway, M; *et al.*
ASTRONOMY & ASTROPHYSICS
Volume: 467 Issue: 2 Pages: 785-905 (2007)

The coronal structure of AB Doradus determined from contemporaneous Doppler imaging and X-ray spectroscopy
Hussain, GAJ; Jardine, M; Donati, JF; Brickhouse, NS; Dunstone, NJ; Wood, K; Dupree, AK; Cameron, AC; Favata, F
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 4 Pages: 1488-1502 (2007)

Near-infrared spectroscopic search for the close orbiting planet HD 75289b
Barnes, JR; Leigh, CJ; Jones, HRA; Barman, TS; Pinfield, DJ; Cameron, AC; Jenkins, JS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 3 Pages: 1097-1107 (2007)

SuperWASP-N extrasolar planet candidates between 18 < RA < 21h
Street, RA; Christian, DJ; Clarkson, WI; Cameron, AC; Enoch, B; Kane, SR; Lister, TA; West, RG; Wilson, DM; Evans, A; Fitzsimmons, A; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 2 Pages: 816-832 (2007)

SuperWASP-North extrasolar planet candidates: candidates from fields 17h < RA < 18h
Lister, TA; West, RG; Wilson, DM; Cameron, AC; Clarkson, WI; Street, RA; Enoch, B; Parley, NR; Christian, DJ; Kane, SR; Evans, A; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 2 Pages: 647-662 (2007)

WASP-1: a lithium- and metal-rich star with an oversized planet
Stempels, HC; Cameron, AC; Hebb, L; Smalley, B; Frandsen, S
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 2 Pages: 773-778 (2007)

Efficient identification of exoplanetary transit candidates from SuperWASP light curves
Cameron, AC; Wilson, DM; West, RG; Hebb, L; Wang, XB; Aigrain, S; Bouchy, F; Christian, DJ; Clarkson, WI; Enoch, B; Esposito, M; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 3 Pages: 1230-1244 (2007)

Differential rotation on rapidly rotating stars
Cameron, AC
ASTRONOMISCHE NACHRICHTEN
Volume: 328 Issue: 10 Pages: 1030-1033 (2007)

Magnetic fields and accretion flows on the classical T Tauri star V2129 Oph
Donati, JF; Jardine, MM; Gregory, SG; Petit, P; Bouvier, J; Dougados, C; Menard, F; Cameron, AC; Harries, TJ; Jeffers, SV; Paletou, F
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1297-1312 (2007)

Spectropolarimetric observations of the transiting planetary system of the K dwarf HD 189733
Moutou, C; Donati, JF; Savalle, R; Hussain, G; Alecian, E; Bouchy, F; Catala, C; Cameron, AC; Udry, S; Vidal-Madjar, A
ASTRONOMY & ASTROPHYSICS
Volume: 473 Issue: 2 Pages: 651-660 (2007)

SuperWASP-North extrasolar planet candidates between 3(h) < RA < 6(h)
Clarkson, WI; Enoch, B; Haswell, CA; Norton, AJ; Christian, DJ; Cameron, AC; Kane, SR; Horne, KD; Lister, TA; Street, RA; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 2 Pages: 851-864 (2007)

Limits on the 2.2-mu contrast ratio of the close-orbiting planet HD 189733b
Barnes, JR; Barman, TS; Prato, L; Segransan, D; Jones, HRA; Leigh, CJ; Cameron, AC; Pinfield, DJ
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 382 Issue: 1 Pages: 473-480 (2007)

Campbell, J

University of Glasgow
4 records

Hard interactions of quarks and gluons: a primer for LHC physics
Campbell, JM; Huston, JW; Stirling, WJ
REPORTS ON PROGRESS IN PHYSICS
Volume: 70 Issue: 1 Pages: 89-193 (2007)

Production of a W boson and two jets with one b-quark tag
Campbell, J; Ellis, RK; Maltoni, F; Willenbrock, S
PHYSICAL REVIEW D
Volume: 75 Issue: 5 Article Number: 054015 (2007)

QCD corrections to J/psi and Upsilon production at hadron colliders
Campbell, J; Maltoni, F; Tramontano, F
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 25 Article Number: 252002 (2007)

Next-to-leading order predictions for WW plus jet distributions at the LHC
Campbell, JM; Ellis, RK; Zanderighi, G
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 12 Article Number: 056 (2007)

Campbell, M

The University of Edinburgh
Zero records for the year 2007

Cantley, C

University of Glasgow
7 records including 4 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Searches for periodic gravitational waves from unknown isolated sources and Scorpius X-1: Results from the second LIGO science run
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 8 Article Number: 082001 (2007)

Upper limit map of a background of gravitational waves
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 8 Article Number: 082003 (2007)

Search for gravitational-wave bursts in LIGO data from the fourth science run
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 22 Pages: 5343-5369 (2007)

Casey, M

University of Glasgow
7 records, all of which are collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Cassettari, D

University of St Andrews
1 record

Collisional relaxation of Feshbach molecules and three-body recombination in Rb-87 Bose-Einstein condensates
Smirne, G; Godun, RM; Cassettari, D; Boyer, V; Foot, CJ; Volz, T; Syassen, N; Durr, S; Rempe, G; Lee, MD; Goral, K; Kohler, T
PHYSICAL REVIEW A
Volume: 75 Issue: 2 Article Number: 020702 (2007)

Cates, M

The University of Edinburgh
7 records

Dense colloidal suspensions under time-dependent shear
Brader, JM; Voigtmann, T; Cates, ME; Fuchs, M
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 5 Article Number: 058301 (2007)

Aging in attraction-driven colloidal glasses
Puertas, AM; Fuchs, M; Cates, ME
PHYSICAL REVIEW E
Volume: 75 Issue: 3 Article Number: 031401 (2007)

Competition between glass transition and liquid-gas separation in attracting colloids
Puertas, AM; Fuchs, M; Cates, ME
JOURNAL OF PHYSICS-CONDENSED MATTER
Volume: 19 Issue: 20 Article Number: 205140 (2007)

Crossover behavior and multistep relaxation in a schematic model of the cut-off glass transition
Greenall, MJ; Cates, ME
PHYSICAL REVIEW E
Volume: 75 Issue: 5 Article Number: 051503 (2007)

Emulsification of partially miscible liquids using colloidal particles: Nonspherical and extended domain structures
Clegg, PS; Herzig, EM; Schofield, AB; Egelhaaf, SU; Horozov, TS; Binks, BP; Cates, ME; Poon, WCK
LANGMUIR
Volume: 23 Issue: 11 Pages: 5984-5994 (2007)

Binary fluids under steady shear in three dimensions
Stratford, K; Desplat, JC; Stansell, P; Cates, ME
PHYSICAL REVIEW E
Volume: 76 Issue: 3 Article Number: 030501 (2007)

Steady-state hydrodynamic instabilities of active liquid crystals: Hybrid lattice Boltzmann simulations
Marenduzzo, D; Orlandini, E; Cates, ME; Yeomans, JM
PHYSICAL REVIEW E
Volume: 76 Issue: 3 Article Number: 031921 (2007)

Chapman, JN

University of Glasgow
7 records including 1 collaboration: CDF Collaboration (listed on p.142)

On the scaling behaviour of cross-tie domain wall structures in patterned NiFe elements
Wiese, N; McVitie, S; Chapman, JN; Capella-Kort, A; Otto, F
EPL
Volume: 80 Issue: 5 Article Number: 057003 (2007)

Controlled domain wall injection into ferromagnetic nanowires from an optimized pad geometry
McGrouther, D; McVitie, S; Chapman, JN; Gentils, A
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 2 Article Number: 022506 (2007)

Micromagnetic reversal behavior of multiscale permalloy elements
Craig, BR; McVitie, S; Chapman, JN; O'Donnell, DO; Johnston, AB
JOURNAL OF APPLIED PHYSICS
Volume: 102 Issue: 1 Article Number: 013911 (2007)

The effect of roughness on the micromagnetic properties of high moment multilayer films
Craig, BR; McVitie, S; Chapman, JN; O'Donnell, DO; Johnston, AB
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 13 Pages: 3991-3997 (2007)

Wall-to-wall
Chapman, JN
MATERIALS WORLD
Volume: 15 Issue: 9 Pages: 28-30 (2007)

Diffusive and ballistic current spin polarization in magnetron-sputtered L1(0)-ordered epitaxial FePt
Seemann, KM; Baltz, V; MacKenzie, M; Chapman, JN; Hickey, BJ; Marrows, CH
PHYSICAL REVIEW B
Volume: 76 Issue: 17 Article Number: 174435 (2007)

Current Research

My research centres around nanoscience, with particular emphasis on high spatial resolution characterisation and property modification using electron and ion beams. My interest is stimulated by the new physics that emerges at ultra-small length scales. While primarily a physicist, I lead collaborations with materials scientists, chemists and electronic engineers. I study magnetic materials extensively and have made major contributions to magnetic sensor and storage technology. I have also pursued research into electronic materials, devices and particulate systems. Much of my work uses electron microscopy and related analytical techniques where I have pioneered the development of novel imaging techniques and methods of analysis. I aim to provide a quantitative characterisation of solids on a near atomic scale.

Chapman, R

University of the West of Scotland
4 records

Single particle structure of exotic nuclei with transfer reactions
Fernandez-Dominguez, B; Lemmon, RC; Timis, C; Labiche, M; Catford, WN; Chartier, M; Ashwood, NI; Amzal, N; Baldwin, TD; Burns, M; *et al.*
PROGRESS IN PARTICLE AND NUCLEAR PHYSICS
Volume: 59 Pages: 389 (2007)

Spectroscopy of neutron-rich P-37
Hodsdon, A; Chapman, R; Liang, X; Haas, F; Ollier, J; Caurier, E; Nowacki, F; Salsac, MD; Azaiez, F; Beghini, S; Behera, B; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 3 Article Number: 034313 (2007)

Recent results on neutron-rich nuclei spectroscopy with the CLARA-PRISMA setup
Gaidea, A; Sahin, E; Valiente-Dobon, JJ; Dewald, A; Farnea, E; De Angelis, G; Axiotis, M; Napoli, DR; Orlandi, R; Della Vedova, F; *et al.*
ACTA PHYSICA POLONICA B
Volume: 38 Issue: 4 Pages: 1311-1319 (2007)

Collapse of the N=28 shell closure in Si-42
Bastin, B; Grevy, S; Sohler, D; Sorlin, O; Dombradi, Z; Achouri, NL; Angelique, JC; Azaiez, F; Baiborodin, D; Borcea, R; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 2 Article Number: 022503 (2007)

Chen, Y

University of Strathclyde
Zero records for the year 2007

Cheplakov, A

University of Glasgow
1 record

The ATLAS semiconductor tracker end-cap module
Abdesselam, A; Adkin, PJ; Allport, PP; Alonso, J; Andricek, L; Anghinolfi, F; Antonov, AA; Apsimon, RJ; Atkinson, T; Batchelor, LE; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 575 Issue: 3 Pages: 353-389 (2007)

Cioni, MR

The University of Edinburgh
5 records

Luminosities and mass-loss rates of carbon stars in the Magellanic Clouds
Groenewegen, MAT; Wood, PR; Sloan, GC; Blommaert, JADL; Cioni, MRL; Feast, MW; Hony, S; Matsuura, M; Menzies, JW; Olivier, EA; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 1 Pages: 313-337 (2007)

Spitzer spectroscopy of carbon stars in the Small Magellanic Cloud
Lagadec, E; Zijlstra, AA; Sloan, GC; Matsuura, M; Wood, PR; van Loon, JT; Harris, GJ; Blommaert, JADL; Hony, S; Groenewegen, MAT; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 3 Pages: 1270-1284 (2007)

Probing clumpy pasts of galaxies from asymptotic giant branch stars
Bekki, K; Cioni, MRL
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 1 Pages: L20-L24 (2007)

Near-infrared photometry of carbon stars in the Sagittarius dwarf irregular galaxy and DDO 210
Gullieuszik, M; Rejkuba, M; Cioni, MR; Habing, HJ; Held, EV
ASTRONOMY & ASTROPHYSICS
Volume: 475 Issue: 2 (2007)

Spitzer Space Telescope spectral observations of AGB stars in the Fornax dwarf spheroidal galaxy
Matsuura, M; Zijlstra, AA; Bernard-Salas, J; Menzies, JW; Sloan, GC; Whitelock, PA; Wood, PR; Cioni, MRL; Feast, MW; Lagadec, E; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 382 Issue: 4 Pages: 1889-1900 (2007)

Clark, P

The University of Edinburgh
66 records, all of which are collaborations: BABAR Collaboration (listed on p.134))

Current Research

Research interests are in the fundamental particles of nature and their interactions. In particular, measurements of CP violation (matter-antimatter asymmetry) in B physics and the discovery of new particle decays. Member of the BaBar and LHCb collaborations. Leading an area of expertise in distributed storage management for the GridPP collaboration.

Clarke, P

The University of Edinburgh
3 records

GridPP: development of the UK computing Grid for particle physics
Faulkner, PJW; Lowe, LS; Tan, CLA; Watkins, PM; Bailey, DS; Barrass, TA; Brook, NH; Croft, RJH; Kelly, MP; Mackay, CK; Metson, S; *et al.*
GRIDPP Collaboration
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS
Volume: 32 Issue: 1 Pages: N1-N20 (2006)

Performance of 1 and 10 Gigabit Ethernet cards with server quality motherboards
Hughes-Jones, R; Clarke, P; Dallison, S
FUTURE GENERATION COMPUTER SYSTEMS
Volume: 21 Issue: 4 Pages: 469-488 (2005)

Progress with vertex detector sensors for the International Linear Collider
Worm, S; Banda, Y; Bowdery, C; Buttar, C; Clarke, P; Cussans, D; Damerell, C; Davies, G; Devetak, E; Fopma, J; Foster, B; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 582 Issue: 3 Pages: 839-842 (2007)

Current Research

Current research is measurement of CP violation in the B meson system and the search for new physics signals through virtual loop corrections. This is work being carried out at the LHCb experiment at the Large Hadron collider in CERN, due to start operations in 2008. Also starting development work for a future international linear electron-positron collider.

Clegg, P

The University of Edinburgh
2 records

Bicontinuous emulsions stabilized solely by colloidal particles
Herzig, EM; White, KA; Schofield, AB; Poon WCK; Clegg, P
NATURE MATERIALS
Volume: 6 Issue: 12 Pages: 966-971 (2007)

Emulsification of partially miscible liquids using colloidal particles: Nonspherical and extended domain structures
Clegg, PS; Herzig, EM; Schofield, AB; Egelhaaf, SU; Horozov, TS; Binks, BP; Cates, ME; Poon, WCK
LANGMUIR
Volume: 23 Issue: 11 Pages: 5984-5994 (2007)

Cochran, S

University of the West of Scotland
2 records

Mathematical optimization of multilayer piezoelectric devices with nonuniform layers by simulated annealing
Abrar, A; Cochran, S
IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL
Volume: 54 Issue: 10 Pages: 1920-1929 (2007)

1-3 Connectivity lithium niobate composites for high temperature operation
Schmarje, N; Kirk, KJ; Cochran, S
ULTRASONICS
Volume: 47 Issue: 1-4 Pages: 15-22 (2007)

Cole, RJ

The University of Edinburgh
1 record

Optical reflectance anisotropy of Ag(110): Evidence for contributions from surface-modified bulk band transitions
Martin, DS; Blanchard, NP; Weightman, P; Roseburgh, DS; Cole, RJ; Hansen, JK; Bremer, J; Hunderi, O
PHYSICAL REVIEW B
Volume: 76 Issue: 11 Article Number: 115403 (2007)

Courtial, J

University of Glasgow
1 record

Experiments with twisted light
Courtial, J; O'Holleran, K
EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS
Volume: 145 Pages: 35-47 (2007)

Crain, J

The University of Edinburgh
5 records

Electrochemical deposition of Zn on TiN microelectrode arrays for microanodes
Ferapontova, EE; Terry, JG; Walton, AJ; Mountford, CP; Crain, J; Buck, AH; Dickinson, P; Campbell, CJ; Beattie, JS; Ghazal, P; Mount, AR
ELECTROCHEMISTRY COMMUNICATIONS
Volume: 9 Issue: 2 Pages: 303-309 (2007)

DNA nanoswitch as a biosensor
Buck, AH; Campbell, CJ; Dickinson, P; Mountford, CP; Stoquert, HC; Terry, JG; Evans, SAG; Keane, LM; Su, TJ; Mount, AR; Walton, AJ; *et al.*
ANALYTICAL CHEMISTRY
Volume: 79 Issue: 12 Pages: 4724-4728 (2007)

Structure of aqueous proline via parallel tempering molecular dynamics and neutron diffraction
Troitzsch, RZ; Martyna, GJ; McLain, SE; Soper, AK; Crain, J
JOURNAL OF PHYSICAL CHEMISTRY B
Volume: 111 Issue: 28 Pages: 8210-8222 (2007)

Improved estimates for hydration free energy obtained by the reference interaction site model
Chuev, GN; Fedorov, MV; Crain, J
CHEMICAL PHYSICS LETTERS
Volume: 448 Issue: 4-6 Pages: 198-202 (2007)

Nature of the metal-nonmetal transition in metal-ammonia solutions. I. Solvated electrons at low metal concentrations
Chuev, GN; Quemerais, P; Crain, J
JOURNAL OF CHEMICAL PHYSICS
Volume: 127 Issue: 24 Article Number: 244501 (2007)

Craven, AJ

University of Glasgow
5 records

Advanced nanoanalysis of a Hf-based high-k dielectric stack prior to activation
MacKenzie, M; Craven, AJ; McComb, DW; De Gendt, S; Docherty, FT; McGilvery, CM; McFadzean, S
ELECTROCHEMICAL AND SOLID STATE LETTERS
Volume: 10 Issue: 6 Pages: G33-G35 (2007)

Nano-characterisation of dielectric breakdown in the various advanced gate stack MOSFETs
Pey, KL; Tung, CH; Ranjan, R; Lo, VL; MacKenzie, M; Craven, AJ
INTERNATIONAL JOURNAL OF NANOTECHNOLOGY
Volume: 4 Issue: 4 Pages: 347-376 (2007)

Dispersion strengthening in vanadium microalloyed steels processed by simulated thin slab casting and direct charging - Part 1 - Processing parameters, mechanical properties and microstructure
Li, Y; Wilson, JA; Craven, AJ; Mitchell, PS; Crowther, DN; Baker, TN
MATERIALS SCIENCE AND TECHNOLOGY
Volume: 23 Issue: 5 Pages: 509-518 (2007)

Dispersion strengthening in vanadium microalloyed steels processed by simulated thin slab casting and direct charging - Part 2 - Chemical characterisation of dispersion strengthening precipitates
Wilson, JA; Craven, AJ; Li, Y; Baker, TN
MATERIALS SCIENCE AND TECHNOLOGY
Volume: 23 Issue: 5 Pages: 519-527 (2007)

GdGaO: A gate dielectric for GaAs metal-oxide-semiconductor field-effect transistors
Holland, M; Stanley, CR; Reid, W; Thayne, I; Paterson, GW; Long, AR; Longo, P; Scott, J; Craven, AJ; Gregory, R
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B
Volume: 25 Issue: 3 Pages: 1024-1028 (2007)

Current Research

My research is concerned with the development of instrumentation and electron and ion beam techniques for finding structural, compositional and chemical information on the atomic scale and applying these techniques to functional and structural materials. The key here is the development of electron energy loss near edge structure as a nanoanalytical tool. In addition to using the world class facilities in Glasgow, I am an investigator on the UK SuperSTEM project. Materials under investigation currently include oxides on semiconductors to allow devices to continue to grow at the rate predicted by Moore's Law and steels for higher strength materials.

Cross, AW

University of Strathclyde
7 records

Local unitary versus local Clifford equivalence of stabilizer and graph states
Zeng, B; Chung, H; Cross, AW; Chuang, IL
PHYSICAL REVIEW A
Volume: 75 Issue: 3 Article Number: 032325 (2007)

Generation and application of pseudospark-sourced electron beams
Cross, AW; Yin, H; He, W; Ronald, K; Phelps, ADR; Pitchford, LC
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 7 Pages: 1953-1956 (2007)

Helically corrugated waveguide gyrotron traveling wave amplifier using a thermionic cathode electron gun
Cross, AW; He, W; Phelps, ADR; Ronald, K; Whyte, CG; Young, AR; Robertson, CW; Rafferty, EG; Thomson, J
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 25 Article Number: 253501 (2007)

Subsystem fault tolerance with the Bacon-Shor code
Aliferis, P; Cross, AW
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 22 Article Number: 220502 (2007)

Study of one-dimensional Bragg structures with localized defect
Konoplev, IV; MacInnes, P; Cross, AW; Phelps, ADR; Ronald, K
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 17 Article Number: 171107 (2007)

Coordinated school health programs and academic achievement: A systematic review of the literature
Murray, NG; Low, BJ; Hollis, C; Cross, AW; Davis, SM
JOURNAL OF SCHOOL HEALTH
Volume: 77 Issue: 9 Pages: 589-600 (2007)

Experimental and theoretical studies of a coaxial free-electron maser based on two-dimensional distributed feedback
Konoplev, IV; Cross, AW; Phelps, ADR; He, W; Ronald, K; Whyte, CG; Robertson, CW; MacInnes, P; Ginzburg, NS; Peskov, NY; *et al.*
PHYSICAL REVIEW E
Volume: 76 Issue: 5 Article Number: 056406 (2007)

Current Research

Research interests include plasma physics, pseudospark discharges and high power free electron radiation sources where complex electromagnetic structures are used to modify and control the properties of the radiation with which an electron beam is interacting. The high power microwave and millimetre wave radiation generated has applications in plasma heating/diagnostics and particle acceleration.

Cunningham, A

University of Strathclyde
1 record

Optical water type discrimination and tuning remote sensing band-ratio algorithms: Application to retrieval of chlorophyll and K-d(490) in the Irish and Celtic Seas
McKee, D; Cunningham, A; Dudek, A
ESTUARINE COASTAL AND SHELF SCIENCE
Volume: 73 Issue: 3-4 Pages: 827-834 (2007)

D'Auria, S

University of Glasgow
34 records, all of which are collaborations: CDF Collaboration (listed on p.142)

Davies, C

University of Glasgow
2 records

Highly improved staggered quarks on the lattice with applications to charm physics
Follana, E; Mason, Q; Davies, C; Hornbostel, K; Lepage, GP; Shigemitsu, J; Trottier, H; Wong, K
PHYSICAL REVIEW D
Volume: 75 Issue: 5 Article Number: 054502 (2007)

B-s(0)-(B)over-bar(s)(0) mixing parameters from unquenched lattice QCD
Dalgic, E; Gray, A; Gamiz, E; Davies, CTH; Lepage, GP; Shigemitsu, J; Trottier, H; Wingate, M
HPQCD Collaboration
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 011501 (2007)

Current Research

I am working as part of the international High Precision QCD (HPQCD) collaboration to calculate the effects of the strong force on the properties of subatomic particles made of quarks. We have pioneered accurate calculations in this area, which are allowing precision tests against experiment for the first time. Our focus is particularly on mesons made of bottom and charm quarks. For these particles precision calculations combined with experimental results (coming from BaBar and CDF, for example) provide important constraints on our current Standard Model of particle physics, and any theories that attempt to go beyond it.

Dawson, MD

University of Strathclyde
13 records

Hybrid inorganic/organic microstructured light-emitting diodes produced using photocurable polymer blends
Gu, E; Zhang, HX; Sun, HD; Dawson, MD; Mackintosh, AR; Kuehne, AJC; Pethrick, RA; Belton, C; Bradley, DDC
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 3 Article Number: 031116 (2007)

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson, MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1669-1676 (2007)

(In,Ga)N/GaN microcavities with double dielectric mirrors fabricated by selective removal of an (Al,In)N sacrificial layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Kang, XN; Zhang, GY; Gu, E; Dawson, MD; Watson, IM; Martin, RW
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 11 Article Number: 111112 (2007)

Pulsed pumping of semiconductor disk lasers
Hempler, N; Hopkins, JM; Kemp, AJ; Schulz, N; Rattunde, M; Wagner, J; Dawson, MD; Burns, D
OPTICS EXPRESS
Volume: 15 Issue: 6 Pages: 3247-3256 (2007)

Thinning of N-face GaN (000(1)over bar) samples by inductively coupled plasma etching and chemomechanical polishing
Rizzi, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW; Kang, XN; Zhang, GY
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A
Volume: 25 Issue: 2 Pages: 252-260 (2007)

Micro-cylindrical and micro-ring lenses in CVD diamond
Lee, CL; Gu, E; Dawson, MD
DIAMOND AND RELATED MATERIALS
Volume: 16 Issue: 4-7 Pages: 944-948 (2007)

Double-dielectric-mirror InGaN/GaN microcavities formed using selective removal of an AlInN layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
SUPERLATTICES AND MICROSTRUCTURES
Volume: 41 Issue: 5-6 Pages: 414-418 (2007)

Efficient dipole-dipole coupling of Mott-Wannier and Frenkel excitons in (Ga,In)N quantum well/polyfluorene semiconductor heterostructures
Itskos, G; Heliotis, G; Lagoudakis, PG; Lupton, JM; Barradas, NP; Alves, E; Pereira, S; Watson, IM; Dawson, MD; Feldmann, J; Murray, R; Bradley, DDC
PHYSICAL REVIEW B
Volume: 76 Issue: 3 Article Number: 035344 (2007)

Microlensed microchip VECSEL
Laurand, N; Lee, CL; Gu, E; Hastie, JE; Calvez, S; Dawson, MD
OPTICS EXPRESS
Volume: 15 Issue: 15 Pages: 9341-9346 (2007)

Optical sectioning microscopes with no moving parts using a micro-stripe array light emitting diode
Poher, V; Zhang, HX; Kennedy, GT; Griffin, C; Oddos, S; Gu, E; Elson, DS; Girkin, JM; French, PMW; Dawson, MD; Neil, MAA
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11196-11206 (2007)

Matrix-addressable micropixellated InGaN light-emitting diodes with uniform emission and increased light output
Gong, Z; Zhang, HX; Gu, E; Griffin, C; Dawson, MD; Poher, V; Kennedy, G; French, PMW; Neil, MAA
IEEE TRANSACTIONS ON ELECTRON DEVICES
Volume: 54 Issue: 10 Pages: 2650-2658 (2007)

Tunable single-mode fiber-VCSEL using an intracavity polymer microlens
Laurand, N; Guilhabert, B; Gu, E; Calvez, S; Dawson, MD
OPTICS LETTERS
Volume: 32 Issue: 19 Pages: 2831-2833 (2007)

Stabilization of a semiconductor disk laser using an intra-cavity high reflectivity grating
Giet, S; Lee, CL; Calvez, S; Dawson, MD; Destouches, N; Pommier, JC; Parriaux, O
OPTICS EXPRESS
Volume: 15 Issue: 25 Pages: 16520-16526 (2007)

Current Research

Professor Dawson's research interests include the following: semiconductor disk lasers at wavelengths from ultraviolet to mid-infrared and including high-power and microcavity formats; optical spectroscopy of organic and inorganic semiconductors; micro-and nano-structured gallium nitride materials and devices; hybrid organic/inorganic light-emitting devices; micro- and nano-fabrication in hard and soft materials, including GaN, sapphire, SiC, diamond and polymers; CMOS control and integration of optoelectronic devices.

Degtyareva, O

The University of Edinburgh
5 records

High-pressure Raman spectroscopy of antimony: As-type, incommensurate host-guest, and bcc phases
Degtyareva, O; Struzhkin, VV; Hemley, RJ
SOLID STATE COMMUNICATIONS
Volume: 141 Issue: 3 Pages: 164-167 (2007)

Vibrational dynamics and stability of the high-pressure chain and ring phases in S and Se
Degtyareva, O; Hernandez, ER; Serrano, J; Somayazulu, M; Mao, HK; Gregoryanz, E; Hemley, RJ
JOURNAL OF CHEMICAL PHYSICS
Volume: 126 Issue: 8 Article Number: 084503 (2007)

Incommensurate modulations of Bi-III and Sb-II
McMahon, MI; Degtyareva, O; Nelmes, RJ
PHYSICAL REVIEW B
Volume: 75 Issue: 18 Article Number: 184114 (2007)

Crystal structure of SiH4 at high pressure
Degtyareva, O; Canales, MM; Bergara, A; Chen, XJ; Song, Y; Struzhkin, VV; Mao, HK; Hemley, RJ
PHYSICAL REVIEW B
Volume: 76 Issue: 6 Article Number: 064123 (2007)

Competition of charge-density waves and superconductivity in sulfur
Degtyareva, O; Magnitskaya, MV; Kohanoff, J; Profeta, G; Scandolo, S; Hanfland, M; McMahon, MI; Gregoryanz, E
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 155505 (2007)

Del Debbio, L

The University of Edinburgh
4 records

QCD with light Wilson quarks on fine lattices (I): first experiences and physics results
Del Debbio, L; Giusti, L; Luscher, M; Petronzio, R; Tantalo, N
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 2 Article Number: 056 (2007)

QCD with light Wilson quarks on fine lattices (II): DD-HMC simulations and data analysis
Del Debbio, L; Giusti, L; Luscher, M; Petronzio, R; Tantalo, N
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 2 Article Number: 082 (2007)

Neural network determination of parton distributions: the nonsinglet case
Del Debbio, L; Forte, S; Latorre, JI; Piccione, A; Rojo, J
NNPDF Collaboration
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 3 Article Number: 039 (2007)

Highest states in light-cone AdS(5) x S-5 superstring
Beccaria, M; De Angelis, GF; Del Debbio, L; Picariello, M
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 4 Article Number: 034 (2007)

Current Research

My research focuses on non-perturbative aspects of Quantum Field Theory, and their application to phenomenology in high-energy particle physics. I have studied several aspects of QCD dynamics from first principles by numerical simulations, and I have computed several quantities of phenomenological interest within the Standard Model. As a complementary approach to hadronic physics, I also work on the determination of the non-perturbative structure of nucleons directly from experimental data. More recently I have started to study field theories on the lattice beyond QCD, in an attempt to bridge the gap between analytical and numerical approaches. These studies are now leading towards models of strong dynamics beyond the Standard Model and non-perturbative aspects of susy theories.

Dholakia, K

University of St Andrews
19 records

Cellular and colloidal separation using optical forces
Dholakia, K; MacDonald, MP; Zemanek, P; Cizmar, T
LASER MANIPULATION OF CELLS AND TISSUES METHODS IN CELL BIOLOGY
Volume: 82 Pages: 467-495 (2007)

Measurement of the restoring forces acting on two optically bound particles from normal mode correlations
Metzger, NK; Marchington, RF; Mazilu, M; Smith, RL; Dholakia, K; Wright, EM
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 6 Article Number: 068102 (2007)

Direct detection of optical phase conjugation in a colloidal medium
Lopez-Mariscal, C; Gutierrez-Vega, JC; McGloin, D; Dholakia, K
OPTICS EXPRESS
Volume: 15 Issue: 10 Pages: 6330-6335 (2007)

Experimental observation of modulation instability and optical spatial soliton arrays in soft condensed matter
Reece, PJ; Wright, EM; Dholakia, K
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 20 Article Number: 203902 (2007)

Fractionation of polydisperse colloid with acousto-optically generated potential energy landscapes
Milne, G; Rhodes, D; MacDonald, M; Dholakia, K
OPTICS LETTERS
Volume: 32 Issue: 9 Pages: 1144-1146 (2007)

Passive optical separation within a 'nondiffracting' light beam
Paterson, L; Papagiakoumou, E; Milne, G; Garcés-Chávez, V; Briscoe, T; Sibbett, W; Dholakia, K; Riches, AC
JOURNAL OF BIOMEDICAL OPTICS
Volume: 467 Issue: 2 Pages: 785-905 (2007)

Construction and calibration of an optical trap on a fluorescence optical microscope
Lee, WM; Reece, P; Marchington, R; Metzger NK; Dholakia, K
NATURE PROTOCOLS
Volume: 662 Issue: 1 Pages: 205-212 (2007)

Optically trapped and controlled microapertures for studies of spatial coherence in an arbitrary light field
Lee, WM; Dholakia, K
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 26 Article Number: 261101 (2007)

Two-photon ablation with 1278 nm laser radiation
Fischer, P; McWilliam, A; Paterson, L; Brown, CTA; Sibbett, W; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S19-S23 (2007)

Femtosecond cellular transfection using a nondiffracting light beam
Tsampoula, X; Garces-Chavez, V; Comrie, M; Stevenson, DJ; Agate, B; Brown, CTA; Gunn-Moore, F; Dholakia, K
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 5 Article Number: 053902 (2007)

Fluorescence suppression within Raman spectroscopy using annular beam excitation
Cormack, IG; Mazilu, M; Dholakia, K; Herrington, CS
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 2 Article Number: 023903 (2007)

Colloidal sorting in dynamic optical lattices
Smith, RL; Spalding, GC; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 8(Sp. Iss. SI) Pages: S134-S138 (2007)

Optical separation of cells on potential energy landscapes: enhancement with dielectric tagging
Dholakia, K; Lee, WM; Paterson, L; MacDonald, MP; McDonald, R; Andreev, I; Mthunzi, P; Brown, CTA; Marchington, RF; Riches, AC
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 379 Issue: 2 Pages: 816-832 (2007)

Special issue on optical micromanipulation
Heckenberg, N; Dholakia, K
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 8(Sp. Iss. SI) (2007)

Simultaneous Raman micro-spectroscopy of optically trapped and stacked cells
Jess, PRT; Garces-Chavez, V; Riches, AC; Herrington, CS; Dholakia, K
JOURNAL OF RAMAN SPECTROSCOPY
Volume: 38 Issue: 9 Pages: 1082-1088 (2007)

The dark spots of Arago
Fischer, P; Skelton, SE; Leburn, CG; Streuber, CT; Wright, EM; Dholakia, K
OPTICS EXPRESS
Volume: 15 Issue: 19 Pages: 11860-11873 (2007)

The resolution of optical traps created by light induced dielectrophoresis (LIDEP)
Neale, SL; Mazilu, M; Wilson, JIB; Dholakia, K; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 20 Pages: 12619-12626 (2007)

Transverse particle dynamics in a Bessel beam
Milne, G; Dholakia, K; McGloin, D; Volke-Sepulveda, K; Zemanek, P
OPTICS EXPRESS
Volume: 15 Issue: 21 Pages: 13972-13987 (2007)

Early detection of cervical neoplasia by Raman spectroscopy
Jess, PRT; Smith, DDW; Mazilu, M; Dholakia, K; Riches, AC; Herrington, CS
INTERNATIONAL JOURNAL OF CANCER
Volume: 121 Issue: 12 Pages: 2723-2728 (2007)

Diver, DA

University of Glasgow
2 records

Small-scale energy release driven by supergranular flows on the quiet sun
Potts, HE; Khan, JI; Diver, DA
SOLAR PHYSICS
Volume: 245 Issue: 1 Pages: 55-68 (2007)

Nonlinear mode coupling in pair plasmas
Stark, CR; Diver, DA; da Costa, AA; Laing, EW
ASTRONOMY & ASTROPHYSICS
Volume: 476 Issue: 1 Pages: 17-30 (2007)

Dominik, M

University of St Andrews
5 records

Exoplanet detection via microlensing with RoboNet-1.0
Burgdorf, MJ; Bramich, DM; Dominik, M; Bode, MF; Horne, KD; Steele, IA; Rattenbury, N; Tsapras, Y
PLANETARY AND SPACE SCIENCE
Volume: 55 Issue: 5 Pages: 582-588 (2007)

Adaptive contouring - an efficient way to calculate microlensing light curves of extended sources
Dominik, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 4 Pages: 1679-1688 (2007)

Probing MACHOs by observation of M 31 pixel lensing with the 1.5 m Loiano telescope - (Research Note)
Calchi Novati, S; Covone, G; De Paolis, F; Dominik, M; Giraud-Heraud, Y; Ingrosso, G; Jetzer, P; Mancini, L; Nucita, A; Scarpetta, G; *et al.*
PLAN collaboration
ASTRONOMY & ASTROPHYSICS
Volume: 469 Issue: 1 Pages: 115-119 (2007)

An anomaly detector with immediate feedback to hunt for planets of Earth mass and below by microlensing
Dominik, M; Rattenbury, NJ; Allan, A; Mao, S; Bramich, DM; Burgdorf, MJ; Kerins, E; Tsapras, Y; Wyrzykowski, L
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 2 Pages: 792-804 (2007)

High-precision astrometry on the VLT/FORS1 at time scales of few days
Lazorenko, PF; Mayor, M; Dominik, M; Pepe, F; Segransan, D; Udry, S
ASTRONOMY & ASTROPHYSICS
Volume: 471 Issue: 3 Pages: 1057-1067 (2007)

Current Research

Gravitational microlensing is currently the only ground-based technique able to detect extra-solar planets of Earth mass and even below, and it may provide the first such detection. As part of a three-step strategy for achieving this goal, formed by survey, follow-up and anomaly monitoring, I coordinate the expert system ARTEMIS (Automated Robotic Terrestrial Exoplanet MIcrolensing Search), which selects the most promising targets for observation and visualizes the data. The arising results will also provide a first census of terrestrial planets around low-mass stars located in the Galactic disk and bulge, rather than just probing the Solar neighbourhood as other techniques.

Doyle, AT

University of Glasgow
20 records, all of which are collaborations: ZEUS Collaboration (listed on p.151)

Driver, SP

University of St Andrews
7 records

A log-quadratic relation for predicting supermassive black hole masses from the host bulge Sersic index
Graham, AW; Driver, SP
ASTROPHYSICAL JOURNAL
Volume: 655 Issue: 1 Pages: 77-87 (2007)

The Millennium Galaxy Catalogue: The luminosity functions of bulges and disks and their implied stellar mass densities
Driver, SP; Allen, PD; Liske, J; Graham, AW
ASTROPHYSICAL JOURNAL
Volume: 657 Issue: 2 Pages: L85-L88 (2007)

The galaxy luminosity-size relation and selection biases in the Hubble Ultra Deep Field
Cameron, E; Driver, SP
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 2 Pages: 523-534 (2007)

The Millennium Galaxy Catalogue: The local supermassive black hole mass function in early- and late-type galaxies
Graham, AW; Driver, SP; Allen, PD; Liske, J
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 378 Issue: 1 Pages: 198-210 (2007)

The Millennium Galaxy Catalogue: The B-band attenuation of bulge and disc light and the implied cosmic dust and stellar mass densities
Driver, SP; Popescu, CC; Tuffs, RJ; Liske, J; Graham, AW; Allen, PD; De Propris, R
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 3 Pages: 1022-1036 (2007)

The local supermassive black hole mass density: corrections for dependencies on the Hubble constant
Graham, AW; Driver, SP
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 1 Pages: L15-L19 (2007)

The Millennium Galaxy Catalogue: The connection between close pairs and asymmetry; Implications for the galaxy merger rate
De Propris, R; Conselice, CJ; Liske, J; Driver, SP; Patton, DR; Graham, AW; Allen, PD
ASTROPHYSICAL JOURNAL
Volume: 666 Issue: 1 Pages: 212-221 (2007)

Current Research

Dr Driver has recently been allocated 66 nights of telescope time on the Anglo-Australian Telescope (worth around 1 million pounds) to conduct a cosmic census of galaxies. The survey led by Dr Driver and entitled Galaxy And Matter Assembly (GAMA), will consist of over 200,000 galaxies and involves over 30 scientists at institutions in the UK, mainland Europe, and Australia. The GAMA database will be used to test predictions of the standard Cold Dark Matter (CDM) model directly and to build a legacy database of galaxies for use by the worldwide community.

Dunlop, JS

The University of Edinburgh
10 records

A broad-band spectroscopic search for CO line emission in HDF850.1: the brightest submillimetre object in the Hubble Deep Field-north
Wagg, J; Hughes, DH; Aretxaga, I; Chapin, EL; Dunlop, JS; Gaztanaga, E; Devlin, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 2 Pages: 745-752 (2007)

The star formation histories of elliptical galaxies across the Fundamental Plane
Nolan, LA; Dunlop, JS; Panter, B; Jimenez, R; Heavens, A; Smith, G
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 1 Pages: 371-380 (2007)

The United Kingdom Infrared Telescope Infrared Deep Sky Survey first data release
Warren, SJ; Hambly, NC; Dye, S; Almaini, O; Cross, NJG; Edge, AC; Foucaud, S; Hewett, PC; Hodgkin, ST; Irwin, MJ; Jameson, RF; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 1 Pages: 213-226 (2007)

0.5 Mpc-scale extended X-ray emission in the z=2.48 radio galaxy 4C 23.56
Johnson, O; Almaini, O; Best, PN; Dunlop, JS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 1 Pages: 151-156 (2007)

Number counts and clustering properties of bright distant red galaxies in the UKIDSS Ultra Deep Survey Early Data Release
Foucaud, S; Almaini, O; Smail, I; Conselice, CJ; Lane, KP; Edge, AC; Simpson, C; Dunlop, JS; McLure, RJ; Cirasuolo, M; Hirst, P; Watson, MG; Page, MJ
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 1 Pages: L20-L24 (2007)

A systematic search for very massive galaxies at z > 4
Dunlop, JS; Cirasuolo, M; McLure, RJ
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 3 Pages: 1054-1064 (2007)

The SCUBA half degree extragalactic survey - IV. Radio-mm-FIR photometric redshifts
Aretxaga, I; Hughes, DH; Coppin, K; Mortier, AMJ; Wagg, J; Dunlop, JS; Chapin, EL; Eales, SA; Gaztanaga, E; Halpern, M; Ivison, RJ; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1571-1588 (2007)

The evolution of the near-infrared galaxy luminosity function and colour bimodality up to z similar or equal to 2 rom the UKIDSS Ultra Deep Survey Early Data Release
Cirasuolo, M; McLure, RJ; Dunlop, JS; Almaini, O; Foucaud, S; Smail, I; Sekiguchi, K; Simpson, C; Eales, S; Dye, S; Watson, MG; Page, MJ; Hirst, P
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 2 Pages: 585-595 (2007)

The SCUBA half degree extragalactic survey - III. Identification of radio and mid-infrared counterparts to submillimetre galaxies
Ivison, RJ; Greve, TR; Dunlop, JS; Peacock, JA; Egami, E; Smail, I; Ibar, E; van Kampen, E; Aretxaga, I; Babbedge, T; Biggs, AD; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 1 Pages: 199-228 (2007)

The SCUBA half degree extragalactic survey (SHADES) - V. Submillimetre properties of near-infrared-selected galaxies in the Subaru/XMM-Newton deep field
Takagi, T; Mortier, AMJ; Shimasaku, K; Coppin, K; Pope, A; Ivison, RJ; Hanami, H; Serjeant, S; Clements, DL; Priddey, RS; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 3 Pages: 1154-1168 (2007)

Dunn, MH

University of St Andrews
2 records

Ee-safe broadband output at 1.55 mu through the use of a fan-out grating structure in MgO : PPLN
Terry, JAC; Tsiminis, G; Dunn, MH; Rae, CF
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 3 Pages: 229-234 (2007)

Mid-Infrared, broadly tunable, active hyperspectral imaging system for the detection of gaseous hydrocarbon species
Stothard, DJM; Rae, CF; Ross, M; Dunn, MH
In: Huckridge, DA; Ebert, RR (Eds.) ELECTRO-OPTICAL AND INFRARED SYSTEMS: TECHNOLOGY AND APPLICATIONS IV, SPIE Proceedings
Volume: 6737 Article Number: 673705

Dunne, W

University of Glasgow
21 records, all of which are collaborations: ZEUS Collaboration (listed on p.151)

Ebbecke, J

Heriot-Watt University
3 records

Surface accoustic wave mediated effects in a multi quantom well
Ebbecke, J; Pierz, K
PHYSICA STATUS SOLIDI
Volume: 4 Pages: 424-426 (2007)

Quantized current in carbon nanotube quantum dots by surface acoustic waves
Wurstle, C; Ebbecke, J; Regler, ME; Wixforth, A
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 073 (2007)

Intra- and intertube tunneling transport in ropes of single-walled carbon nanotubes
Seemann, KM; Ebbecke, J; Horner, AL; Wixforth, A
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 23 Article Number: 232109 (2007)

Current Research

Jens recently joined Heriot-Watt University as a lecturer in October 2007 after a four-year postdoc period at Augsburg University, Germany. In 2002-2003, he was employed by NPL in London but mostly worked as a guest at the Cavendish Laboratory in Sir Pepper's group. His main interests are acoustodynamic effects in semiconductor nanostructures. This includes surface acoustic wave mediated single charge transport in III/V quantum dots and carbon nanotubes and also single photon generation on demand in semiconductor nanostructures.

Eklund, L

University of Glasgow
2 records, all of which are collaborations: ATLAS Collaboration (listed on p.134)

Evans, MR

The University of Edinburgh
5 records

Criticality and condensation in a non-conserving zero-range process
Angel, AG; Evans, MR; Levine, E; Mukamel, D
JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT
Article Number: P08017 (2007)

Model of hyphal tip growth involving microtubule-based transport
Sugden, KEP; Evans, MR; Poon, WCK; Read, ND
PHYSICAL REVIEW E
Volume: 75 Issue: 3 Article Number: 031909 (2007)

An exclusion process for modelling fungal hyphal growth
Evans, MR; Sugden, KEP
PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS
Volume: 384 Issue: 1 Pages: 53-58 (2007)

A dynamically extending exclusion process
Sugden, KEP; Evans, MR
JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT
Article Number: P11013 (2007)

Nonequilibrium steady states of matrix-product form: a solver's guide
Blythe, RA; Evans, MR
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL
Volume: 40 Issue: 46 Pages: R333-R441 (2007)

Ferguson, AI

University of Strathclyde
1 record

Novel gain medium design for short-wavelength vertical-external-cavity surface-emitting laser
McGinily, SJ; Abram, RH; Gardner, KS; Riis, E; Ferguson, AI; Roberts, JS
IEEE JOURNAL OF QUANTUM ELECTRONICS
Volume: 43 Issue: 5-6 Pages: 445-450 (2007)

Ferguson, AMN

The University of Edinburgh
6 records

A Search for Extended Ultraviolet Disk (XUV- Disk) Galaxies in the Local Universe
Thilker, DA; Bianchi, L; Meurer, G; Gil de Paz, A; Boissier, S; Madore, BF; Boselli, A; Ferguson, AMN; Munoz-Mateos, JC; *et al.*
THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 173 Issue: 2 Pages: 538-571 (2007)

ACS Photometry of Newly Discovered Globular Clustrts in the Outer Halo of M31
Mackey, AD; Huxor, A, Ferguson, AMN; Tanvir, NR; Irwin, M; Ibata, R; Bridges, T; Johnson, RA; Lewis, G
THE ASTROPHYSICAL JOUNRAL
Volume: 655 Issue: 2 Pages: L85-L88 (2007)

Probing the Nature of the G1 Clump Stellar Overdensity in the Outskirts of M31
Faria, D; Johnson, RA; Ferguson, AMN; Irwin, MJ; Ibata, R; Johnston, KV; Lewis, GF, Tanvir, NR
THE ASTRONOMICAL JOURNAL
Volume: 133 Issue: 4 Pages: 1275-1286 (2007)

The AAT/ WFI survay of the Monoceros Ring and Canis Major dwarf galaxy - I. From I = (193-276)
Conn, BC; Lane, RR; Lewis, GF; Gil-Merino, R; Irwin, MJ; Ibata, RA; Martin, NF; Bellazzini, M; Sharp, R; Tuntsov, AV; Ferguson, AMN
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 3 Pages: 939-959 (2007)

The Detection of Molecular Gas in the Outskirts of NGC
Braine, J; Ferguson, AMN; Bertoldi, F; Wilson, C
THE ASTROPHYSICAL JOUNRAL
Volume: 669 Issue: 2 Pages: L73-L76 (2007)

The Haunted Halos of Andromeda and Triangulum: A Panorama of Galaxy Formation in Action
Ibata, R; Martin, NF; Irwin, M; Chapman, S; Ferguson, AMN; Lewis, GF; McConnachie, AW
THE ASTROPHYSICAL JOUNRAL
Volume: 671 Issue: 2 Pages: 1591-1623 (2007)

Ferrando, J

University of Glasgow
19 records, all of which are collaborations: ZEUS Collaboration (listed on p.150)

Firth, WJ

University of Strathclyde
6 records

Collective Atomic Recoil Lasing With a Partially Coherent Pump
Robb GRM; Firth, WJ
PHYSICAL REVIEW LETTERS
Volume: 99 Article Number: 253601 Pages: 1-4 (2007)

Bifurcation structure of dissipative solitons
Gomila, D; Scroggie, AJ; Firth, WJ
PHYSICA D-NONLINEAR PHENOMENA
Volume: 227 Issue: 1 Pages: 70-77 (2007)

Localized traveling waves in vertical-cavity surface-emitting lasers with frequency-selective optical feedback
Paulau, PV; Scroggie, AJ; Naumenko, A; Ackemann, T; Loiko, NA; Firth, WJ
PHYSICAL REVIEW E
Volume: 75 Issue: 5 Article Number: 056208 (2007)

On homoclinic snaking in optical systems
Firth, WJ; Columbo, L; Maggipinto, T
CHAOS
Volume: 17 Issue: 3 Article Number: 037115 (2007)

Proposed resolution of theory-experiment discrepancy in homoclinic snaking
Firth, WJ; Columbo, L; Scroggie, AJ
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 10 Article Number: 104503 (2007)

Two-dimensional front dynamics and spatial solitons in a nonlinear optical system
Pesch, M; Lange, W; Gomila, D; Ackemann, T; Firth, WJ; Oppo, GL
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 153902 (2007)

Current Research

We have identified a discrepancy between theory and experiment in nonlinear optics of driven optical resonators: the spontaneous appearance of cavity solitons should not happen but does. Similar issues arise in other fields and we found a generic resolution by adding a non-local nonlinear effect. We are also modelling solitons in VCSELs with grating feedback. In atomic physics, we have shown that pump laser noise may enhance collective backscattering and have contributed to an elegant study of domain dynamics in a feedback mirror experiment.

Fischer, I

Heriot-Watt University
4 records

Simultaneous Bidirectional Message Transmission in a Chaos-Based Communication Scheme
Vicente, R; Fischer, I; Mirasso, CR
OPTICAL LETTERS
Volume: 32 Issue: 403 (2007)

Tailored External-Cavity Semiconductor Laser Systems Harnessing Nonlinear Dynamics
Peil, M; Mandre, S; Fischer, I; Elsäßer, W
TECHNISCHES MESSEN
Volume: 74 Article Number: 353 (2007)

Versatile and Robust Chaos Synchronization Phenomena Imposed by Delayed Shared Feedback Coupling
Peil, M; Larger, L; Fischer, I
PHYSICAL REVIEW E
Volume: 76 Article Number: 045201 (2007)

Zero-lag Long Range Synchronization of Neurons Is Enhanced by Dynamical Relaying Artificial Neural Networks ICANN
Vicente, R; Pipa, G; Fischer, I; Mirasso, CR;
LECTURE NOTES IN COMPUTER SCIENCE
Volume: 1 Issue: 4668 Pages: 904-913 (2007)

Current Research

Professor Ingo Fischer received a diploma in physics and a Ph.D. degree in Natural Sciences from the Philipps University Marburg (Germany) in 1992 and 1995, respectively. After assistant professor and guest scientist positions in Darmstadt (Germany), Kyoto (Japan), and Brussels (Belgium), he joined Heriot-Watt University in 2007. His research interests are at the interface of photonics with semiconductor lasers and nonlinear physics. He is currently working on utilisation of deterministic chaos for functional purposes. Prof Fischer has received several research prizes including a Cooperation Prize of the Technology Transfer Network Hassia in 2004.

Fletcher, L

University of Glasgow
5 records

A TRACE white light and RHESSI hard X-ray study of flare energetics
Fletcher, L; Hannah, IG; Hudson, HS; Metcalf, TR
ASTROPHYSICAL JOURNAL
Volume: 656 Issue: 2 Pages: 1187-1196 (2007)

Fast Alfven wave heating and acceleration of ions in a nonuniform magnetoplasma
McKay, RJ; McClements, KG; Fletcher, L
ASTROPHYSICAL JOURNAL
Volume: 658 Issue: 1 Pages: 631-642 (2007)

Birth and evolution of a dense coronal loop in a complex flare region
Bone, L; Brown, JC; Fletcher, L; Veronig, A; White, S
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 1 Pages: 339-346 (2007)

Flare productivity of newly-emerged paired and isolated solar active regions
Dalla, S; Fletcher, L; Walton, NA
ASTRONOMY & ASTROPHYSICS
Volume: 468 Issue: 3 Pages: 1103-1108 (2007)

The relative timing of supra-arcade downflows in solar flares
Khan, JI; Bain, HM; Fletcher, L
ASTRONOMY & ASTROPHYSICS
Volume: 475 Issue: 1 Pages: 333-340 (2007)

Forrest, M

University of Glasgow
8 records, all of which are collaborations: ZEUS Collaboration (listed on p.150)

Franke-Arnold, S

University of Glasgow
3 records

Phase-dependent light propagation in atomic vapors
Kajari-Schroder, S; Morigi, G; Franke-Arnold, S; Oppo, GL
PHYSICAL REVIEW A
Volume: 75 Issue: 1 Article Number: 013816 (2007)

Quantum formulation of fractional orbital angular momentum
Gotte, JB; Franke-Arnold, S; Zambrini, R; Barnett, SM
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1723-1738 (2007)

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Ohberg, P; Arnold, AS
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8619-8625 (2007)

Fraser, HJ

University of Strathclyde
3 records

Effects of CO2 on H2O band profiles and band strengths in mixed H2O : CO2 ices
Oberg, KI; Fraser, HJ; Boogert, ACA; Bisschop, SE; Fuchs, GW; van Dishoeck, EF; Linnartz, H
ASTRONOMY & ASTROPHYSICS
Volume: 462 Issue: 3 Pages: 1187-1198 (2007)

Desorption of CO and O-2 interstellar ice analogs
Acharyya, K; Fuchs, GW; Fraser, HJ; van Dishoeck, EF; Linnartz, H
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 3 (2007)

Photodesorption of CO ice
Oberg, KI; Fuchs, GW; Awad, Z; Fraser, HJ; Schlemmer, S; Van Dishoeck, EF; Linnartz, H
ASTROPHYSICAL JOURNAL
Volume: 662 Issue: 1 Pages: L23-L26 (2007)

Current Research

Our astrochemistry research focuses on chemical processes occurring in star-forming regions. Using data from ASTRO-F, JCMT, IRAM and Nobeyama we are mapping interstellar ice and gas features in starless cores. Our UHV experiment is being built to study atom-molecule reactions leading to ice formation on nano-sized interstellar dust analogues. Parabolic flights are used to study how icy grains aggregate to form planets and cometary nuclei.

Froggatt, C

University of Glasgow
1 record

Fixed point scenario in the two Higgs doublet model inspired by degenerate vacua
Froggatt, CD; Nevzorov, R; Nielsen, HB; Thompson, D
PHYSICS LETTERS B
Volume: 657 Issue: 1-3 Pages: 95-102 (2007)

Galbraith, I

Heriot-Watt University
1 record

Enhancement and reduction of line broadening due to Auger scattering in modulation-doped InGaAs/GaAs quantum dot devices
Nilsson, HH; Zhang, JZ; Galbraith, I
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 16 Article Number: 161113 (2007)

Galster, W

University of Strathclyde
1 record

Laser-driven proton oncology - a unique new cancer therapy?
Ledingham, KWD; Galster, W; Sauerbrey, R
BRITISH JOURNAL OF RADIOLOGY
Volume: 80 Issue: 959 Pages: 855-858 (2007)

Gerardot, BD

Heriot-Watt University
6 records

Fine structure of negatively and positively charged excitons in semiconductor quantum dots: Electron-hole asymmetry
Ediger, M; Bester, G; Gerardot, BD; Badolato, A; Petroff, PM; Karrai, K; Zunger, A; Warburton, RJ
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 3 Article Number: 036808 (2007)

Manipulating exciton fine structure in quantum dots with a lateral electric field
Gerardot, BD; Seidl, S; Dalgarno, PA; Warburton, RJ; Granados, D; Garcia, JM; Kowalik, K; Krebs, O; Karrai, K; Badolato, A; Petroff, PM
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 4 Article Number: 041101 (2007)

Correlated and entangled pairs of single photons from semiconductor quantum dots
Akopian, N; Lindner, NH; Poem, E; Berlatzky, Y; Avron, J; Gershoni, D; Gerardot, BD; Petroff, PM
JOURNAL OF APPLIED PHYSICS
Volume: 101 Issue: 8 Article Number: 081712 (2007)

Resonant interaction between a quantum dot and a narrowband laser: Spectroscopy and optical pumping of a single spin
Kroner, M; Seidl, S; Gerardot, BD; Biedermann, B; Badolato, A; Petroff, PM; Karrai, K; Waxburton, RJ
INTERNATIONAL JOURNAL OF MODERN PHYSICS B
Volume: 21 Issue: 8-9 Pages: 1307-1315 (2007)

Contrast in transmission spectroscopy of a single quantum dot
Gerardot, BD; Seidl, S; Dalgarno, PA; Warburton, RJ; Kroner, M; Karrai, K; Badolato, A; Petroff, PM
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 22 Article Number: 221106 (2007)

Polarization sensitive spectroscopy of charged quantum dots
Poem, E; Shemesh, J; Marderfeld, I; Galushko, D; Akopian, N; Gershoni, D; Gerardot, BD; Badolato, A; Petroff, PM
PHYSICAL REVIEW B
Volume: 76 Issue: 23 Article Number: 235304 (2007)

Current Research

Brian graduated from Purdue University in 1998 and earned a Ph.D. from the University of California (Santa Barbara) in 2004 with Pierre Petroff and Dirk Bouwmeester. He then joined Richard Warburton's Nano-Optics Group at Heriot-Watt University. Brian became a Research Fellow of the Royal Society of Edinburgh in 2007. Brian has broad experience in the field of semiconductor nanostructures. His work has included crystal growth via molecular beam epitaxy, nano-fabrication, structural characterization and optical spectroscopy. His current research focuses on the fundamental physics in quantum dots, in particular exploiting the properties of charge and spin for solid-state quantum optics.

Girkin, JM

University of Strathclyde
8 records

Adaptive optics for enhanced signal in CARS microscopy
Wright, AJ; Poland, SP; Girkin, JM; Freudiger, CW; Evans, CL; Xie, XS
OPTICS EXPRESS
Volume: 15 Article Number: 018209 (2007)

Characterization of natural carious lesions by fluorescence spectroscopy at 405-nm excitation wavelength
Zezell, DM; Ribeiro, AC; Bachmann, L; Gomes, ASL; Rousseau, C; Girkin, JM
JOURNAL OF BIOMEDICAL OPTICS
Volume: 12 Article Number: 643013 (2007)

Development of fibre-optic confocal microscopy for detection and diagnosis of dental caries
Rousseau, C; Poland, S; Hall, AF; Whitters, CJ; Girkin, JM
CARIES RESEARCH
Volume: 41 Pages: 245-251 (2007)

Time-correlated single-photon counting fluorescence lifetime confocal imaging of decayed and sound dental structures with a white-light supercontinuum source
McConnell, G; Girkin, JM; Ameer-Beg, SM; Barber, PR; Banerjee, BVA; Watson, T; Cook, R
JOURNAL OF MICROSCOPY
Volume: 225 Pages: 126-136 (2007)

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Ohberg, P; Arnold, AS
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8619-8625 (2007)

Parametric resonance of optically trapped aerosols
Di Leonardo, R; Ruocco, G; Leach, J; Padgett, MJ; Wright, AJ; Girkin, JM; Burnham, DR; McGloin, D
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 1 Article Number: 010601 (2007)

Real-time, ultralow concentration detection of analytes in solution by infrared intracavity laser absorption
Elejalde, U; Girkin, JM
APPLIED OPTICS
Volume: 46 Issue: 19 Pages: 3995-3999 (2007)

Optical sectioning microscopes with no moving parts using a micro-stripe array light emitting diode
Poher, V; Zhang, HX; Kennedy, GT; Griffin, C; Oddos, S; Gu, E; Elson, DS; Girkin, JM; French, PMW; Dawson, MD; Neil, MAA
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11196-11206 (2007)

Greated, C

The University of Edinburgh
Zero records for the year 2007

Greaves, J

University of St Andrews
9 records

Magnetic fields in planetary nebulae and post-AGB nebulae
Sabin, L; Zijlstra, AA; Greaves, JS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 1 Pages: 378-386 (2007)

Transience of hot dust around Sun-like stars
Wyatt, MC; Smith, R; Greaves, JS; Beichman, CA; Bryden, G; Lisse, CM
ASTROPHYSICAL JOURNAL
Volume: 658 Issue: 1 Pages: 569-583 (2007)

Predicting the frequencies of diverse exo-planetary systems
Greaves, JS; Fischer, DA; Wyatt, MC; Beichman, CA; Bryden, G
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 378 Issue: 1 Pages: L1-L5 (2007)

Steady state evolution of debris disks around a stars
Wyatt, MC; Smith, R; Su, KYL; Rieke, GH; Greaves, JS; Beichman, CA; Bryden, G
ASTROPHYSICAL JOURNAL
Volume: 663 Issue: 1 Pages: 365-382 (2007)

An unbiased survey of 500 nearby stars for debris disks: A JCMT legacy program
Matthews, BC; Greaves, JS; Holland, WS; Wyatt, MC; Barlow, MJ; Bastien, P; Beichman, CA; Biggs, A; Butner, HM; Dent, WRF; *et al.*
PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF THE PACIFIC
Volume: 119 Issue: 858 Pages: 842-854 (2007)

Molecular hydrogen emission from discs in the eta Chamaeleontis cluster
Howat, SKR; Greaves, JS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1658-1664 (2007)

Multiwaveband polarimetric observations of 15 active galactic nuclei at high frequencies: Correlated polarization behavior
Jorstad, SG; Marscher, AP; Stevens, JA; Smith, PS; Forster, JR; Gear, WK; Cawthorne, TV; Lister, ML; Stirling, AM; Gomez, JL; Greaves, JS; Robson, EI
ASTRONOMICAL JOURNAL
Volume: 134 Issue: 2 Pages: 799-824 (2007)

The James Clerk Maxwell telescope legacy survey of nearby star-forming regions in the Gould belt
Ward-Thompson, D; Di Francesco, J; Hatchell, J; Hogerheijde, MR; Nutter, D; Bastien, P; Basu, S; Bonnell, I; Bowey, J; Brunt, C; *et al.*
PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF THE PACIFIC
Volume: 119 Issue: 858 Pages: 855-870 (2007)

Origin of the metallicity dependence of exoplanet host stars in the protoplanetary disc mass distribution
Wyatt, MC; Clarke, CJ; Greaves, JS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1737-1743 (2007)

Green, AG
University of St Andrews
2 records

Magnetothermoelectric response at a superfluid-Mott-insulator transition
Bhaseen, MJ; Green, AG; Sondhi, SL
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 16 Article Number: 166801 (2007)

Electrons acquire a split personality in bismuth
Huxley, A; Green, AG
SCIENCE
Volume: 317 Issue: 5845 Pages: 1694-1695 (2007)

Greenaway, AH
Heriot-Watt University
4 records

Zernike phase sensor for phasing of segmented telescopes
Huang, T; Lu, W; Zhang, S; Greenaway, AH
APPLIED PHYSICS B-LASERS AND OPTICS
Volume: 86 Issue: 1 Pages: 139-145 (2007)

Analysis of pupil replication
Spaan, FHP; Greenaway, AH
ASTROPHYSICAL JOURNAL
Volume: 658 Issue: 2 Pages: 1380-1385 (2007)

Wave-front sensing by use of a Green's function solution to the intensity transport equation: reply to comment
Woods, SC; Campbell, HI; Greenaway, AH
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION
Volume: 24 Issue: 8 Pages: 2482-2484 (2007)

Direct optimization of femtosecond laser ablation using adaptive wavefront shaping
Campbell, S; Triphan, SMF; El-Agmy, R; Greenaway, AH; Reid, DT
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 11 Pages: 1100-1104 (2007)

Gregoryanz, E
The University of Edinburgh
8 records

OsN2: Crystal structure and electronic properties
Montoya, JA; Hernandez, AD; Sanloup, C; Gregoryanz, E; Scandolo, S
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 1 Article Number: 011909 (2007)

Effect of light elements on the sound velocities in solid iron: Implications for the composition of Earth's core
Badro, J; Fiquet, G; Guyot, F; Gregoryanz, E; Occelli, F; Antonangeli, D; d'Astuto, M
EARTH AND PLANETARY SCIENCE LETTERS
Volume: 254 Issue: 1-2 Pages: 233-238 (2007)

Vibrational dynamics and stability of the high-pressure chain and ring phases in S and Se
Degtyareva, O; Hernandez, ER; Serrano, J; Somayazulu, M; Mao, HK; Gregoryanz, E; Hemley, RJ
JOURNAL OF CHEMICAL PHYSICS
Volume: 126 Issue: 8 Article Number: 084503 (2007)

High P-T transformations of nitrogen to 170 GPa
Gregoryanz, E; Goncharov, AF; Sanloup, C; Somayazulu, M; Mao, HK; Hemley, RJ
JOURNAL OF CHEMICAL PHYSICS
Volume: 126 Issue: 18 Article Number: 184505 (2007)

Thermal equation of state of cubic boron nitride: Implications for a high-temperature pressure scale
Goncharov, AF; Crowhurst, JC; Dewhurst, JK; Sharma, S; Sanloup, C; Gregoryanz, E; Guignot, N; Mezouar, M
PHYSICAL REVIEW B
Volume: 75 Issue: 22 Article Number: 224114 (2007)

Competition of charge-density waves and superconductivity in sulfur
Degtyareva, O; Magnitskaya, MV; Kohanoff, J; Profeta, G; Scandolo, S; Hanfland, M; McMahon, MI; Gregoryanz, E
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 155505 (2007)

Structure of sodium above 100 GPa by single-crystal x-ray diffraction
McMahon, MI; Gregoryanz, E; Lundegaard, LF; Loa, I; Guillaume, C; Nelmes, RJ; Kleppe, AK; Amboage, M; Wilhelm, H; Jephcoat, AP
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
Volume: 104 Issue: 44 Pages: 17297-17299 (2007)

Anomalous optical emission in hot dense oxygen
Santoro, M; Gregoryanz, E; Mao, HK; Hemley, RJ
SOLID STATE COMMUNICATIONS
Volume: 144 Issue: 5-6 Pages: 225-229 (2007)

Current Research

I currently study simple systems e.g. N2, H2, O2, CH4, Na under extreme conditions of pressures and temperatures by the means of optical and x-ray spectroscopy. I am also interested in the synthesis of novel materials with super-hard or super-conducting properties under extreme conditions.

Grigera, S

University of St Andrews
1 record

Formation of a nematic fluid at high fields in Sr3Ru2O7
Borzi, RA; Grigera, SA; Farrell, J; Perry, RS; Lister, SJS; Lee, SL; Tennant, DA; Maeno, Y; Mackenzie, AP
SCIENCE
Volume: 315 Issue: 5809 Pages: 214-217 (2007)

Gu, E

University of Strathclyde
9 records

Hybrid inorganic/organic microstructured light-emitting diodes produced using photocurable polymer blends
Gu, E; Zhang, HX; Sun, HD; Dawson, MD; Mackintosh, AR; Kuehne, AJC; Pethrick, RA; Belton, C; Bradley, DDC
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 3 Article Number: 031116 (2007)

(In,Ga)N/GaN microcavities with double dielectric mirrors fabricated by selective removal of an (Al,In)N sacrificial layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Kang, XN; Zhang, GY; Gu, E; Dawson, MD; Watson, IM; Martin, RW
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 11 Article Number: 111112 (2007)

Thinning of N-face GaN (000(1)over bar) samples by inductively coupled plasma etching and chemomechanical polishing
Rizzi, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW; Kang, XN; Zhang, GY
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A
Volume: 25 Issue: 2 Pages: 252-260 (2007)

Micro-cylindrical and micro-ring lenses in CVD diamond
Lee, CL; Gu, E; Dawson, MD
DIAMOND AND RELATED MATERIALS
Volume: 16 Issue: 4-7 Pages: 944-948 (2007)

Double-dielectric-mirror InGaN/GaN microcavities formed using selective removal of an AlInN layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
SUPERLATTICES AND MICROSTRUCTURES
Volume: 41 Issue: 5-6 Pages: 414-418 (2007)

Microlensed microchip VECSEL
Laurand, N; Lee, CL; Gu, E; Hastie, JE; Calvez, S; Dawson, MD
OPTICS EXPRESS
Volume: 15 Issue: 15 Pages: 9341-9346 (2007)

Optical sectioning microscopes with no moving parts using a micro-stripe array light emitting diode
Poher, V; Zhang, HX; Kennedy, GT; Griffin, C; Oddos, S; Gu, E; Elson, DS; Girkin, JM; French, PMW; Dawson, MD; Neil, MAA
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11196-11206 (2007)

Matrix-addressable micropixellated InGaN light-emitting diodes with uniform emission and increased light output
Gong, Z; Zhang, HX; Gu, E; Griffin, C; Dawson, MD; Poher, V; Kennedy, G; French, PMW; Neil, MAA
IEEE TRANSACTIONS ON ELECTRON DEVICES
Volume: 54 Issue: 10 Pages: 2650-2658 (2007)

Tunable single-mode fiber-VCSEL using an intracavity polymer microlens
Laurand, N; Guilhabert, B; Gu, E; Calvez, S; Dawson, MD
OPTICS LETTERS
Volume: 32 Issue: 19 Pages: 2831-2833 (2007)

Current Research

Dr. Erdan Gu is a research team leader at Strathclyde University's Institute of Photonics. He obtained his PhD degree in 1992 and then worked on thin film magnetism in Cavendish Laboratory, Cambridge University. He joined the Institute of Photonics in 2002. His research interests focus mainly on epitaxial growth, in-situ and ex-situ characterizations, micro-fabrication, magnetic, optoelectronic and photonic devices and micro-systems. He has published more than 150 refereed journal papers and has managed and coordinated several multi-partner research programmes.

Hadfield, RH

Heriot-Watt University
8 records

Submicrometer photoresponse mapping of nanowire superconducting single-photon detectors
Hadfield, RH; Dalgarno, PA; O'Connor, JA; Ramsey, E; Warburton, RJ; Gansen, EJ; Baek, B; Stevens, MJ, Mirin, RP; Nam, SW
APPLIED PHYSICAL LETTERS
Volume: 91 Article Number: 241108 (2007)

Characterization of fiber-generated entangled photon pairs with superconducting single-photon detectors
Liang, C; Lee, KF; Medic, M; Kumar, P; Hadfield, RH; Nam, SW
OPTICS EXPRESS
Volume: 15 Issue: 3 Pages: 1322-1327 (2007)

Low timing jitter detector for gigahertz quantum key distribution
Collins, RJ; Hadfield, RH; Fernandez, V; Nam, SW; Buller, GS
ELECTRONICS LETTERS
Volume: 43 Issue: 3 Pages: 180-182 (2007)

Single-photon source characterization with twin infrared-sensitive superconducting single-photon detectors
Hadfield, RH; Stevens, MJ; Mirin, RP; Nam, SW
JOURNAL OF APPLIED PHYSICS
Volume: 101 Issue: 10 Article Number: 103104 (2007)

Quantum key distribution over a 40-dB channel loss using superconducting single-photon detectors
Takesue, H; Nam, SW; Zhang, Q; Hadfield, RH; Honjo, T; Tamaki, K; Yamamoto, Y
NATURE PHOTONICS
Volume: 1 Issue: 6 Pages: 343-348 (2007)

Operational analysis of a quantum dot optically gated field-effect transistor as a single-photon detector
Gansen, EJ; Rowe, MA; Greene, MB; Rosenberg, D; Harvey, TE; Su, MY; Hadfield, RH; Nam, SW; Mirin, RP
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 4 Pages: 967-977 (2007)

Subcentimeter depth resolution using a single-photon counting time-of-flight laser ranging system at 1550 nm wavelength
Warburton, RE; McCarthy, A; Wallace, AM; Hernandez-Marin, S; Hadfield, RH; Nam, SW; Buller, GS
OPTICS LETTERS
Volume: 32 Issue: 15 Pages: 2266-2268 (2007)

Photon-number-discriminating detection using a quantum-dot, optically gated, field-effect transistor
Gansen, EJ; Rowe, MA; Greene, MB; Rosenberg, D; Harvey, TE; Su, MY; Hadfield, RH; Nam, SW; Mirin, RP
NATURE PHOTONICS
Volume: 1 Issue: 10 Pages: 585-588 (2007)

Current Research

Dr Hadfield completed his PhD research at the University of Cambridge in 2002. He then joined the US National Institute of Standards and Technology (NIST) in Boulder, Colorado. At NIST he focussed on developing a new type of high-speed superconducting single-photon counting detector. He has used these detectors in many groundbreaking photon-counting experiments, particularly in quantum information processing. He joined Heriot-Watt University in January 2007 as a Royal Society University Research Fellow and is now a Lecturer in Physics. He aims to develop next generation superconducting single-photon detectors and to implement them in photon-counting applications in partnership with UK and international collaborators.

Hall, DR

Heriot-Watt University
4 records

A planar waveguide Nd : YAG laser using active Q-switching of a hybrid unstable resonator
Xu, JQ; Thomson, IJ; Valera, JDR; Baker, HJ; Russell, AB; Hall, DR
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 3 Pages: 638-646 (2007)

Laser drilling of copper foils for electronics applications
Moorhouse, CJ; Villarreal, FJ; Baker, HJ; Hall, DR
IEEE TRANSACTIONS ON COMPONENTS AND PACKAGING TECHNOLOGIES
Volume: 30 Issue: 2 Pages: 254-263 (2007)

Mode competition in acousto-optically Q-switched planar waveguide lasers
Xu, JQ; Baker, HJ; Hall, DR
OPTICS AND LASER TECHNOLOGY
Volume: 39 Issue: 4 Pages: 814-820 (2007)

Pump uniformity and temperature profile measurements in a planar waveguide Nd : YAG laser by a beam deflection method
Sun, F; Baker, HJ; Russell, AB; Valera, JD; Hall, DR
IEEE JOURNAL OF QUANTUM ELECTRONICS
Volume: 43 Issue: 7-8 Pages: 669-675 (2007)

Hambly, NC

The University of Edinburgh
10 records

Two T dwarfs from the UKIDSS early data release
Kendall, TR; Tamura, M; Tinney, CG; Martin, EL; Ishii, M; Pinfield, DJ; Lucas, PW; Jones, HRA; Leggett, SK; Dye, S; Hewett, PC; *et al.*
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 3 Pages: 1059-1064 (2007)

Southern infrared proper motion survey. II. A sample of low mass stars with mu >= 0.1 ''/yr
Deacon, NR; Hambly, NC
ASTRONOMY & ASTROPHYSICS
Volume: 468 Issue: 1 Pages: 163-170 (2007)

The solar neighborhood. XVIII. Discovery of new proper-motion stars with 0.4 " yr(-1) > mu >= 0.18 " yr(-1) between declinations -90 degrees and 47 degrees
Finch, CT; Henry, TJ; Subasavage, JP; Jao, WC; Hambly, NC
ASTRONOMICAL JOURNAL
Volume: 133 Issue: 6 Pages: 2898-2907 (2007)

Proper motion L and T dwarf candidate members of the Pleiades
Casewell, SL; Dobbie, PD; Hodgkin, ST; Moraux, E; Jameson, RF; Hambly, NC; Irwin, J; Lodieu, N
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 378 Issue: 3 Pages: 1131-1140 (2007)

The solar neighborhood. XIX. Discovery and characterization of 33 new nearby white dwarf systems
Subasavage, JP; Henry, TJ; Bergeron, P; Dufour, P; Hambly, NC; Beaulieu, TD
ASTRONOMICAL JOURNAL
Volume: 134 Issue: 1 Pages: 252-261 (2007)

Trigonometric parallaxes of high velocity halo white dwarf candidates
Ducourant, C; Teixeira, R; Hambly, NC; Oppenheimer, BR; Hawkins, MRS; Rapaport, M; Modolo, J; Lecampion, JF
ASTRONOMY & ASTROPHYSICS
Volume: 470 Issue: 1 Pages: 387-394 (2007)

Eight new T4.5-T7.5 dwarfs discovered in the UKIDSS large area survey data release 1
Lodieu, N; Pinfield, DJ; Leggett, SK; Jameson, RF; Mortlock, DJ; Warren, SJ; Burningham, B; Lucas, PW; Chiu, K; Liu, MC; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1423-1430 (2007)

The UKIRT infrared deep sky survey (UKIDSS)
Lawrence, A; Warren, SJ; Almaini, O; Edge, AC; Hambly, NC; Jameson, RF; Lucas, P; Casali, M; Adamson, A; Dye, S; Emerson, JP; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1599-1617 (2007)

A wide deep infrared look at the Pleiades with UKIDSS: new constraints on the substellar binary fraction and the low-mass initial mass function
Lodieu, N; Dobbie, PD; Deacon, NR; Hodgkin, ST; Hambly, NC; Jameson, RF
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 2 Pages: 712-732 (2007)

A very cool brown dwarf in UKIDSS DR1
Warren, SJ; Mortlock, DJ; Leggett, SK; Pinfield, DJ; Homeier, D; Dye, S; Jameson, RF; Lodieu, N; Lucas, PW; Adamson, AJ; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 4 Pages: 1400-1412 (2007)

Hammond, GD

University of Glasgow
1 record

New constraints on short-range forces coupling mass to intrinsic spin
Hammond, GD; Speake, CC; Trenkel, C; Paton, AP
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 8 Article Number: 081101 (2007)

Han, TPJ

University of Strathclyde
2 records

Photoconductivity in LiNbO3 crystals codoped with MgO and Cr2O3
Arizmendi, L; Heras, CDL; Jaque, F; Suchocki, A; Kobyakov, S; Han, TPJ
APPLIED PHYSICS B-LASERS AND OPTICS
Volume: 87 Issue: 1 Pages: 123-127 (2007)

Optical stability of the Cr3+ centres in codoped stoichiometric and congruent LiNbO3 : Cr : Mg
Han, TPJ; Jaque, F
OPTICAL MATERIALS
Volume: 29 Issue: 8 Pages: 1041-1043 (2007)

Hand, DP

Heriot-Watt University
6 records

A noninvasive optical system for the measurement of xylem and phloem sap flow in woody plants of stem size
Helfter, C; Shephard, JD; Martinez-Vilalta, J; Mencuccini, M; Hand, DP
TREE PHYSIOLOGY
Volume: 27 Issue: 2 Pages: 169-179 (2007)

Three-dimensional polymer optical waveguide interleaver with selectable channel spacing
Wu, Q; Chan, HP; Chu, PL; Hand, DP
OPTICS COMMUNICATIONS
Volume: 273 Issue: 2 Pages: 394-397 (2007)

Laser bonding of glass to silicon using polymer for microsystems packaging
Bardin, F; Kloss, S; Wang, CH; Moore, AJ; Jourdain, A; De Wolf, I; Hand, DP
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS
Volume: 16 Issue: 3 Pages: 571-580 (2007)

Optical fiber array for the delivery of high peak-power laser pulses for fluid flow measurements
Parry, JP; Shephard, JD; Thomson, MJ; Taghizadeh, MR; Jones, JDC; Hand, DP
APPLIED OPTICS
Volume: 46 Issue: 17 Pages: 3432-3438 (2007)

Compact tunable three-dimensional polymer optical waveguide comb filter
Wu, Q; Chan, HP; Chu, PL; Yu, CX; Hand, DP
OPTICS COMMUNICATIONS
Volume: 277 Issue: 1 Pages: 89-92 (2007)

Mid-infrared methane detection in a photonic bandgap fiber using a broadband optical parametric oscillator
Kornaszewski, L; Gayraud, N; Stone, JM; MacPherson, WN; George, AK; Knight, JC; Hand, DP; Reid, DT
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11219-11224 (2007)

Current Research

Duncan Hand is Professor of Applied Photonics at Heriot-Watt University, and his research focuses on applications of photonics in manufacturing; optical sensing; and fibre optic delivery of high peak power laser light. His work on manufacturing includes laser precision machining and laser joining of microsystems, and is a key component of the Scottish Manufacturing Institute, which was recently renewed until 2013 with a £7.2M grant from EPSRC. Work on high peak power delivery through novel fibres includes a collaboration with the University of Bath on photonic bandgap fibres, whilst current sensing activity includes gas sensing using hollow photonic bandgap fibres.

Hart, A

The University of Edinburgh
3 records including 1 collaboration: RBC Collaboration; UKQCD Collaboration (listed on p.150)

Leptonic widths of heavy quarkonia: S-wave QCD/NRQCD matching coefficients for the electromagnetic vector annihilation current at O(alpha(s)v(2))
Hart, A; von Hippel, GM; Horgan, RR
PHYSICAL REVIEW D
Volume: 75 Issue: 1 Article Number: 014008 (2007)

2+1 flavor domain wall QCD on a (2 fm)(3) lattice: Light meson spectroscopy with Ls=16
Allton, C; Antonio, DJ; Blum, T; Bowler, KC; Boyle, PA; Christ, NH; Cohen, SD; Clark, MA; Dawson, C; Hart, A; Hashimoto, K; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 014504 (2007)

Hastie, JE

University of Strathclyde
2 records

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson, MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1669-1676 (2007)

Microlensed microchip VECSEL
Laurand, N; Lee, CL; Gu, E; Hastie, JE; Calvez, S; Dawson, MD
OPTICS EXPRESS
Volume: 15 Issue: 15 Pages: 9341-9346 (2007)

Heavens, A

The University of Edinburgh
9 records

Probing dark energy with the shear-ratio geometric test
Taylor, AN; Kitching, TD; Bacon, DJ; Heavens, AF
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 4 Pages: 1377-1403 (2007)

The star formation histories of elliptical galaxies across the Fundamental Plane
Nolan, LA; Dunlop, JS; Panter, B; Jimenez, R; Heavens, A; Smith, G
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 1 Pages: 371-380 (2007)

Cosmological constraints from COMBO-17 using 3D weak lensing
Kitching, TD; Heavens, AF; Taylor, AN; Brown, ML; Meisenheimer, K; Wolf, C; Gray, ME; Bacon, DJ
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 2 Pages: 771-778 (2007)

Bayesian Evidence for a cosmological constant using new high-redshift supernova data
Serra, P; Heavens, A; Melchiorri, A
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 1 Pages: 169-175 (2007)

The star formation histories of galaxies in the Sloan Digital Sky Survey
Panter, B; Jimenez, R; Heavens, AF; Charlot, S
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 378 Issue: 4 Pages: 1550-1564 (2007)

On model selection forecasting, dark energy and modified gravity
Heavens, AF; Kitching, TD; Verde, L
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 3 Pages: 1029-1035 (2007)

Bayesian galaxy shape measurement for weak lensing surveys - I. Methodology and a fast-fitting algorithm
Miller, L; Kitching, TD; Heymans, C; Heavens, AF; Van Waerbeke, L
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 382 Issue: 1 Pages: 315-324 (2007)

Recovering galaxy star formation and metallicity histories from spectra using VESPA
Tojeiro, R; Heavens, AF; Jimenez, R; Panter, B
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 3 Pages: 1252-1266 (2007)

The ages, metallicities, and star formation histories of early-type galaxies in the SDSS
Jimenez, R; Bernardi, M; Haiman, Z; Panter, B; Heavens, AF
ASTROPHYSICAL JOURNAL
Volume: 669 Issue: 2 Pages: 947-951 (2007)

Current Research

Research: 1. Studies of weak gravitational lensing, especially concentrating on the possibilities of 3D weak lensing to determine the Dark Energy equation of state, and test Einstein's General Theory of Relativity, especially in the context of the Pan-STARRS surveys. AFH is co-lead of the cosmological lensing part of Pan-STARRS. 2. Star formation of the galaxies, from analysis of optical spectra. Applications include determining whether there are two populations of supernova type 1A, evidence for outflow from galaxies, and evolution of metallicity. 3. Search for non-gaussianity in the microwave background, from WMAP and soon Planck.

Hendry, M

University of Glasgow
8 records

Gravitational astrophysics
Hendry, M; Woan, G
ASTRONOMY & GEOPHYSICS
Volume: 48 Issue: 1 Pages: 10-17 (2007)

Completeness - I. Revisited, reviewed and revived
Johnston, R; Teodoro, L; Hendry, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Issue: 4 Pages: 1757-1766 (2007)

Gamma-ray bursts: cosmic rulers for the high-redshift universe?
Speirits, FC; Hendry, MA; Gonzalez, A
PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES
Volume: 365 Issue: 1854 Pages: 1395-1397 (2007)

How far is it to a sudden future singularity of pressure?
Dabrowski, MP; Denkiewicz, T; Hendry, MA
PHYSICAL REVIEW D
Volume: 75 Issue: 12 Article Number: 123524 (2007)

Cluster analysis of massive datasets in astronomy
Jang, W; Hendry, M
STATISTICS AND COMPUTING
Volume: 17 Issue: 3 Pages: 253-262 (2007)

Inference on inspiral signals using LISA MLDC data
Rover, C; Stroeer, A; Bloomer, E; Christensen, N; Clark, J; Hendry, M; Messenger, C; Meyer, R; Pitkin, M; Toher, J; Umstaetter, R; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S521-S527 (2007)

Inference on white dwarf binary systems using the first round Mock LISA Data Challenges data sets
Stroeer, A; Veitch, J; Roever, C; Bloomer, E; Clark, J; Christensen, N; Hendry, M; Messenger, C; Meyer, R; Pitkin, M; Toher, J; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S541-S549 (2007)

Report on the first round of the mock LISA data challenges
Arnaud, KA; Auger, G; Babak, S; Baker, JG; Benacquista, MJ; Bloomer, E; Brown, DA; Camp, JB; Cannizzo, JK; Christensen, N; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S529-S539 (2007)

Heng, IS

University of Glasgow
8 records including 7 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Evidence-based search method for gravitational waves from neutron star ring-downs
Clark, J; Heng, IS; Pitkin, M; Woan, G
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 043003 (2007)

Hilditch, RW

University of St Andrews
2 records

Astrophysical parameters forthe eclipsing binary IZ Persei
Hilditch, RW; Hill, G; Lister, TA
OBSERVATORY
Volume: 127 Issue: 1196 Pages: 33-45 (2007)

Efficiency of mass transfer in massive close binaries - Tests from double-lined eclipsing binaries in the SMC
de Mink, SE; Pols, OR; Hilditch, RW
ASTRONOMY & ASTROPHYSICS
Volume: 467 Issue: 3 (2007)

Hollis, D

University of the West of Scotland
1 record

Effect of clustering of Tm ions in the alkali rich regions of tellurite glasses on infrared fluorescence parameters
Hollis, DB; Firth, LD; Cruickshank, FR; Payne, JM; Gorman, P
PHYSICS AND CHEMISTRY OF GLASSES - EUROPEAN JOURNAL OF GLASS SCIENCE AND TECHNOLOGY PART B
Volume: 78 Issue: 6 Pages: 373-379 (2007)

Holmes, AT

University of St Andrews
2 records

Resistivity and AC calorimetry measurements on CeNiGe2 under pressure
Holmes, AT; Muramatsu, T; Miyake, A; Kaczorowski, D; Bukowski, Z; Kagayama, T; Shimizu, K
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS
Volume: 310 Issue: 2 Pages: 343-345 (2007)

Valence instability and superconductivity in heavy fermion systems
Holmes, AT; Jaccard, D; Miyake, K
JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN
Volume: 76 Issue: 5 Article Number: 051002 (2007)

Hooley, CA

University of St Andrews
2 records

Physics - Heavy fermions in the original fermi liquid
Hooley, CA; Mackenzie, AP
SCIENCE
Volume: 317 Issue: 5843 Pages: 1332-1333 (2007)

Quantitative determination of the Hubbard model phase diagram from optical lattice experiments by two-parameter scaling
Campo, VL; Capelle, K; Quintanilla, J; Hooley, CA
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 24 Article Number: 240403 (2007)

Current Research

Chris's work is concerned with the theory of systems composed of many strongly-interacting particles, with particular emphasis on cases where quantum effects are dominant. Examples drawn from his recent research include: the Kondo effect in quantum dots; magnetic fluctuations in sodium cobaltate and the behaviour of ultracold atoms in optical lattices. Current and future projects include the nature of the undiagnosed phase in strontium ruthenate, the non-analytic nature of magnetic fluctuations in metals and what happens to the Lee-Yang zeroes near a quantum critical point.

Hopkins, JM

University of Strathclyde
4 records

High performance 2.2 um optically-pumped vertical external-cavity surface-emitting laser
Hopkins, JM; Preston, RD; Maclean, AJ; Calvez, S; Sun, H; Ng, J; Steer, M; Hopkinson, M; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1677-1683 (2007)

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson, MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 12 Pages: 1669-1676 (2007)

Pulsed pumping of semiconductor disk lasers
Hempler, N; Hopkins, JM; Kemp, AJ; Schulz, N; Rattunde, M; Wagner, J; Dawson, MD; Burns, D
OPTICS EXPRESS
Volume: 15 Issue: 6 Pages: 3247-3256 (2007)

Tunable, single-frequency, diode-pumped 2.3 mu VECSEL
Hopkins, JM; Maclean, AJ; Burns, D; Riis, E; Schulz, N; Rattunde, M; Manz, C; Kohler, K; Wagner, J
OPTICS EXPRESS
Volume: 15 Issue: 13 Pages: 8212-8217 (2007)

Horne, KD

University of St Andrews
9 records

WASP-1b and WASP-2b: two new transiting exoplanets detected with SuperWASP and SOPHIE
Cameron, AC; Bouchy, F; Hebrard, G; Maxted, P; Pollacco, D; Pont, F; Skillen, I; Smalley, B; Street, RA; West, RG; Wilson, DM; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 3 Pages: 951-957 (2007)

Exoplanet detection via microlensing with RoboNet-1.0
Burgdorf, MJ; Bramich, DM; Dominik, M; Bode, MF; Horne, KD; Steele, IA; Rattenbury, N; Tsapras, Y
PLANETARY AND SPACE SCIENCE
Volume: 55 Issue: 5 Pages: 582-588 (2007)

New periodic variable stars coincident with ROSAT sources discovered using SuperWASP
Norton, AJ; Wheatley, PJ; West, RG; Haswell, CA; Street, RA; Cameron, AC; Christian, DJ; Clarkson, WI; Enoch, B; Gallaway, M; *et al.*
ASTRONOMY & ASTROPHYSICS
Volume: 467 Issue: 2 Pages: 785-905 (2007)

NGC 5548 in a low-luminosity state: Implications for the broad-line region
Bentz, MC; Denney, KD; Cackett, EM; Dietrich, M; Fogel, JKJ; Ghosh, H; Horne, KD; Kuehn, C; Minezaki, T; Onken, CA; Peterson, BM; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 662 Issue: 1 Pages: 205-212 (2007)

SuperWASP-N extrasolar planet candidates between 18 < RA < 21h
Street, RA; Christian, DJ; Clarkson, WI; Cameron, AC; Enoch, B; Kane, SR; Lister, TA; West, RG; Wilson, DM; Evans, A; Fitzsimmons, A; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 2 Pages: 816-832 (2007)

SuperWASP-North extrasolar planet candidates: candidates from fields 17h < RA < 18h
Lister, TA; West, RG; Wilson, DM; Cameron, AC; Clarkson, WI; Street, RA; Enoch, B; Parley, NR; Christian, DJ; Kane, SR; Evans, A; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 2 Pages: 647-662 (2007)

Efficient identification of exoplanetary transit candidates from SuperWASP light curves
Cameron, AC; Wilson, DM; West, RG; Hebb, L; Wang, XB; Aigrain, S; Bouchy, F; Christian, DJ; Clarkson, WI; Enoch, B; Esposito, M; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 3 Pages: 1230-1244 (2007)

Testing thermal reprocessing in active galactic nuclei accretion discs
Cackett, EM; Horne, KD; Winkler, H
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 2 Pages: 669-682 (2007)

SuperWASP-North extrasolar planet candidates between 3(h) < RA < 6(h)
Clarkson, WI; Enoch, B; Haswell, CA; Norton, AJ; Christian, DJ; Cameron, AC; Kane, SR; Horne, KD; Lister, TA; Street, RA; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 2 Pages: 851-864 (2007)

Horsley, R

The University of Edinburgh
3 records

Hadron spectrum, quark masses and decay constants from light overlap fermions on large lattices
Galletly, D; Gurtler, M; Horsley, R; Perlt, H; Rakow, PEL; Schierholz, G; Schiller, A; Streuer, T
PHYSICAL REVIEW D
Volume: 75 Article Number: 073015 (2007)

The pion form factor from lattice QCD with two dynamical flavours
Brommel, D; Diehl, M; Gockeler, M; Hagler, P; Horsley, R; Nakamura, Y; Pleiter, D; Rakow, PEL; Schafer, A; Schierholz, G; Stuben, H; Zanotti, JM
QCDSF Collaboration; UKQCD Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 51 Pages: 335 (2007)

Transverse spin structure of the nucleon from lattice QCD simulations
Gockeler, M; Hagler, P; Horsley, R; Nakamura, Y; Pleiter, D; Rakow, PEL; Schafer, A; Schierholz, G; Stuben H; Zanotti, JM
PHYSICAL REVIEW LETTERS
Volume: 98 Article Number: 222001 (2007)

Current Research

Hadrons, for example the proton, are composed of quarks tightly bound together by the gluons of Quantum Chromodynamics (QCD). These bound states may be studied using lattice gauge theories, i.e. by using computational Monte Carlo techniques. My recent research interests have focused on studing the fundamental parameters of QCD and in particular the coupling constant between the quarks and gluons and the quark masses. Various hadron matrix elements that describe the internal structure of the particle have been investigated.

Hossack, W

The University of Edinburgh
Zero records for the year 2007

Hough, J

University of Glasgow
12 records including 7 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Titania-doped tantala/silica coatings for gravitational-wave detection
Harry, GM; Abernathy, MR; Becerra-Toledo, AE; Armandula, H; Black, E; Dooley, K; Eichenfield, M; Nwabugwu, C; Villar, A; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 2 Pages: 405-415 (2007)

Influence of temperature and hydroxide concentration on the settling time of hydroxy-catalysis bonds
Reid, S; Cagnoli, J; Elliffe, E; Faller, J; Hough, J; Martin, I; Rowan, S
PHYSICS LETTERS A
Volume: 363 Issue: 5-6 Pages: 341-345 (2007)

Gravitational wave: gamma-ray burst connections
Hough, J
PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES
Volume: 365 Issue: 1854 Pages: 1335-1342 (2007)

Photon-pressure-induced test mass deformation in gravitational-wave detectors
Hild, S; Brinkmann, M; Danzmann, K; Grote, H; Hewitson, M; Hough, J; Luck, H; Martin, I; Mossavi, K; Rainer, N; Reid, S; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 22 Pages: 5681-5688 (2007)

Charge measurement and mitigation for the main test masses of the GEO 600 gravitational wave observatory
Hewitson, M; Danzmann, K; Grote, H; Hild, S; Hough, J; Lueck, H; Rowan, S; Smith, JR; Strain, KA; Willke, B
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 24 Pages: 6379-6391 (2007)

The GEO 600 core optics
Winkler, W; Danzmann, K; Grote, H; Hewitson, M; Hild, S; Hough, J; Luck, H; Malec, M; Freise, A; Mossavi, K; Rowan, S; Rudiger, A; et al.
OPTICS COMMUNICATIONS
Volume: 280 Issue: 2 Pages: 492-499 (2007)

Current Research

My research is aimed at the detection of gravitational waves from astrophysical sources. In particular I am working on improving the performance of gravitational wave detectors through the reduction of thermal noise and have particular interests in the GEO 600 detector in Germany, the transfer of GEO technology to the US LIGO project, and the design of a third generation low temperature detector system.

Hourahine, B

University of Strathclyde
6 records

An efficient LDA+U based tight binding approach
Sanna, S; Hourahine, B; Gallauner, T; Frauenheim, T
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 26 Pages: 5665-5670 (2007)

DFTB+, a sparse matrix-based implementation of the DFTB method
Aradi, B; Hourahine, B; Frauenheim, T
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 26 Pages: 5678-5684 (2007)

Initial steps toward automating the fitting of DFTB E-rep(r)
Knaup, JM; Hourahine, B; Frauenheim, T
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 26 Pages: 5637-5641 (2007)

Self-interaction and strong correlation in DFTB
Hourahine, B; Sanna, S; Aradi, B; Kohler, C; Niehaus, T; Frauenheim, T
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 26 Pages: 5671-5677 (2007)

Treatment of collinear and noncollinear electron spin within an approximate density functional based method
Kohler, C; Frauenheim, T; Hourahine, B; Seifert, G; Sternberg, M
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 26 Pages: 5622-5629 (2007)

Efficient tight-binding approach for the study of strongly correlated systems
Sanna, S; Hourahine, B; Gerstmann, U; Frauenheim, T
PHYSICAL REVIEW B
Volume: 76 Issue: 15 Article Number: 155128 (2007)

Hunt, NT

University of Strathclyde
4 records

Terahertz-pulse emission through laser excitation of surface plasmons in a metal grating
Welsh, GH; Hunt, NT; Wynne, K
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 2 Article Number: 026803 (2007)

The dynamics of water-protein interaction studied by ultrafast optical Kerr-effect spectroscopy
Hunt, NT; Kattner, L; Shanks, RP; Wynne, K
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Volume: 129 Issue: 11 Pages: 3168-3172 (2007)

The ultrafast dynamics of hydrogen-bonded liquids: Molecular structure-dependent occurrence of normal arrhenius or fractional stokes-einstein-debye rotational diffusive relaxation
Hunt, NT; Turner, AR; Tanaka, H, Wynne, K
JOURNAL OF PHYSICAL CHEMISTRY B
Volume: 111 Issue: 32 Pages: 9634-9643 (2007)

Ultrafast dynamics in complex fluids observed through the ultrafast optically-heterodyne-detected optical-Kerr-effect (OHD-OKE)
Hunt, NT; Jaye, AA; Meech, SR
PHYSICAL CHEMISTRY CHEMICAL PHYSICS
Volume: 9 Issue: 18 Pages: 2167-2180 (2007)

Current Research

Neil is an EPSRC Advanced Research Fellow working on femtosecond two dimensional infrared (2D-IR) spectroscopy and its application to biological systems. 2D-IR spectroscopy offers a new, dynamic view of such systems, complementary to the static picture given by methods such as NMR or X-ray diffraction. By spreading the infrared spectrum over two frequency axes, 2D-IR extends methods like FTIR through the presence of off-diagonal peaks, which indicate vibrational coupling. These peaks yield previously inaccessible information on molecular structure and vibrational dynamics. Additionally, a modification of the technique will be developed to create real time molecular movies of chemical reactions.

Huxley, A

The University of Edinburgh
4 records

Odd-parity superconductivity and the ferromagnetic quantum critical point
Huxley, AD; Yates, SJC; Levy, F; Sheikin, I
JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN
Volume: 76 Issue: 5 Article Number: 051011 (2007)

Acute enhancement of the upper critical field for superconductivity approaching a quantum critical point in URhGe
Levy, F; Sheikin, I; Huxley, A
NATURE PHYSICS
Volume: 3 Issue: 7 Pages: 460-463 (2007)

Pressure-induced f-electron delocalization in the U-based strongly correlated compounds UPd3 and UPd2Al3: Resonant inelastic x-ray scattering and first-principles calculations
Rueff, JP; Raymond, S; Yaresko, A; Braithwaite, D; Leininger, P; Vanko, G; Huxley, A; Rebizant, J; Sato, N
PHYSICAL REVIEW B
Volume: 76 Issue: 8 Article Number: 085113 (2007)

Electrons acquire a split personality in bismuth
Huxley, A; Green, AG
SCIENCE
Volume: 317 Issue: 5845 Pages: 1694-1695 (2007)

Ireland, D

University of Glasgow
13 records including 11 collaborations: CLAS Collaboration (listed on p.146): MAX-LAB NUCLEAR PHYSICS Working Group (listed on p.149)

Regge-plus-resonance treatment of the p(gamma,K+)Sigma(0) and p(gamma,K-0)Sigma(+) reactions at forward kaon angles
Corthals, T; Van Cauteren, T; Ryckebusch, J; Ireland, DG
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 045204 (2007)

Electroproduction of kaons from the proton in a Regge-plus-resonance approach
Corthals, T; Van Cauteren, T; Vancraeyveld, R; Ryckebusch, J; Ireland, DG
PHYSICS LETTERS B
Volume: 656 Issue: 4-5 Pages: 186-192 (2007)

Ivison, R

The University of Edinburgh
5 records

AEGIS: A panchromatic study of IRAC-selected extremely red objects with confirmed spectroscopic redshifts
Wilson, G; Huang, JS; Fazio, GG; Yan, R; Koekemoer, AM; Salim, S; Faber, SM; Lotz, J; Willmer, CNA; Davis, M; Coil, AL; Newman, JA; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 660 Issue: 1 Pages: L59-L63 (2007)

AEGIS: Infrared spectroscopy of an infrared-luminous Lyman break galaxy at z=3.01
Huang, JS; Rigopoulou, D; Papovich, C; Ashby, MLN; Willner, SP; Ivison, R; Laird, ES; Webb, T; Wilson, G; Barmby, P; Chapman, S; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 660 Issue: 1 Pages: L69-L72 (2007)

Far-infrared characterization of an ultraluminous starburst associated with a massively accreting black hole at z=1.15
Le Floc'h, E; Willmer, CNA; Noeske, K; Konidaris, NP; Laird, ES; Koo, DC; Nandra, K; Bundy, K; Salim, S; Maiolino, R; Conselice, CJ; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 660 Issue: 1 Pages: L65-L68 (2007)

A multiwavelength analysis of the strong lensing cluster RCS 022434-0002.5 at z=0.778
Hicks, AK; Ellingson, E; Hoekstra, H; Gladders, M; Yee, HKC; Bautz, M; Gilbank, D; Webb, T; Ivison, R
ASTROPHYSICAL JOURNAL
Volume: 671 Issue: 2 Pages: 1446-1455 (2007)

Spectroscopic follow-up of a cluster candidate at z=1.45
van Breukelen, C; Cotter, G; Rawlings, S; Readhead, T; Bonfield, D; Clewley, L; Ivison, R; Jarvis, M; Simpson, C; Watson, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 382 Issue: 3 Pages: 971-984 (2007)

Jardine, MM

University of St Andrews
5 records

Theoretical mass loss rates of cool main-sequence stars
Holzwarth, V; Jardine, MM
ASTRONOMY & ASTROPHYSICS
Volume: 463 Issue: 1 Pages: 11-21 (2007)

The coronal structure of AB Doradus determined from contemporaneous Doppler imaging and X-ray spectroscopy
Hussain, GAJ; Jardine, MM; Donati, JF; Brickhouse, NS; Dunstone, NJ; Wood, K; Dupree, AK; Cameron, AC; Favata, F
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 4 Pages: 1488-1502 (2007)

Why are accreting T Tauri stars observed to be less luminous in X-rays than non-accretors
Gregory, SG; Wood, K; Jardine, MM
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 1 Pages: L35-L39 (2007)

Formation of polar starspots through meridional circulation
Holzwarth, V; Mackay, DH; Jardine, MM
ASTRONOMISCHE NACHRICHTEN
Volume: 328 Issue: 10 Pages: 1108-1110 (2007)

Magnetic fields and accretion flows on the classical T Tauri star V2129 Oph
Donati, JF; Jardine, MM; Gregory, SG; Petit, P; Bouvier, J; Dougados, C; Menard, F; Cameron, AC; Harries, TJ; Jeffers, SV; Paletou, F
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1297-1312 (2007)

Jaroszynski, DA

University of Strathclyde
4 records

200 ns pulse high-voltage supply for terahertz field emission
Welsh, GH; Turton, DA; Jones, DR; Jaroszynski, DA; Wynne, K
REVIEW OF SCIENTIFIC INSTRUMENTS
Volume: 78 Issue: 4 Article Number: 043103 (2007)

Propagation of a weakly nonlinear laser pulse in a curved plasma channel
Reitsma, AJW; Jaroszynski, DA
PHYSICS OF PLASMAS
Volume: 14 Issue: 5 Article Number: 053104 (2007)

GeV plasma accelerators driven in waveguides
Hooker, SM; Brunetti, E; Esarey, E; Gallacher, JG; Geddes, CGR; Gonsalves, AJ; Jaroszynski, DA; Kamperidis, C; Kneip, S; *et al.*
PLASMA PHYSICS AND CONTROLLED FUSION
Volume: 49 Issue: 12B Pages: B403-B410 (2007)

High energy terahertz pulse emission from GaAs illuminated by a femtosecond laser
Sun, JH; Gallacher, JG; Limos, N; Issac, R; Dias, JM; Huang, ZX; Jaroszynski, DA;
Proc. SPIE
Volume: 6840 Issue: 1 Pages: 68401C-1-68401C-9

Jeffers, J

University of Strathclyde
4 records

Fidelity for imperfect postselection
Hamilton, CS; Jeffers, J
PHYSICS REVIEW A
Volume: 76 Article Number: 052106 (2007)

Preamplified photodetectors for high-fidelity postselecting optical devices
Jeffers, J
PHYSICAL REVIEW A
Volume: 75 Issue: 1 Article Number: 012335 (2007)

The damped Jaynes-Cummings model
Barnett, SM; Jeffers, J
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 13-15 Pages: 2033-2048 (2007)

Frictional quantum decoherence
Bellomo, B; Barnett, SM; Jeffers, J
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL
Volume: 40 Issue: 31 Pages: 9437-9453 (2007)

Current Research

Research spans two main topics at present: (1) Optical postselection, in which states of light useful for quantum information processing are manufactured based on the results of partial measurement of the system. Applications of a new measure of fidelity to postselection, and simple ways of increasing thix fidelity. (2) Measurements and open quantum systems, which looks at the application of open system master equations to repeatedly measured systems. Simulation, the relation of the weak rapid measurement limit to the classical world. Application to friction/ Brownian motion and the arrow of time.

Jones, JDC

Heriot-Watt University
4 records

Fibre optics in palladium-based hydrogen sensing
Maier, RRJ; Jones, BJS; Barton, JS; McCulloch, S; Allsop, T; Jones, JDC; Bennion, I
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S45-S59 (2007)

Multipoint laser vibrometer for modal analysis
MacPherson, WN; Reeves, M; Towers, DP; Moore, AJ; Jones, JDC; Dale, M; Edwards, C
APPLIED OPTICS
Volume: 46 Issue: 16 Pages: 3126-3132 (2007)

Optical fiber array for the delivery of high peak-power laser pulses for fluid flow measurements
Parry, JP; Shephard, JD; Thomson, MJ; Taghizadeh, MR; Jones, JDC; Hand, DP
APPLIED OPTICS
Volume: 46 Issue: 17 Pages: 3432-3438 (2007)

Optical fibre sensors 18 (OFS-18)
Jones, JDC; Tatam, RP
MEASUREMENT SCIENCE & TECHNOLOGY
Volume: 18 Issue: 10 (2007)

Current Research

Optical fibre technology has made possible instrumentation for applications as diverse as material processing, blast wave measurement for mitigation of terrorist threat, long-term safety monitoring of nuclear assemblies, detection of subtle shape changes in civil engineering structures, or measuring the shape of insect wings in flight. Of growing importance are waveguide structures based on photonic crystals and photonic bandgaps, offering the prospect of intrinsic fibre sensors sensitised to specific measurands, and the possibility of delivery far higher power densities and wider ranges of wavelength than is feasible with conventional fibre.

Jonson, M

Heriot-Watt University
4 records

Electromechanical instabilities of suspended carbon nanotubes-multi mode excitations
Jonsson, LM; Gorelik, LY; Shekhter, RI; Jonson, M
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 090 (2007)

Shot noise spectroscopy of electronic spin flips in quantum dots
Gorelik, LY; Kulinich, SI; Shekhter, RI; Jonson, M; Vinokur, VM
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 19 Article Number: 192105 (2007)

Nanomechanical shuttle transfer of electrons
Shekhter, RI; Gorelik, LY; Jonson, M; Galperin, YM; Vinokur, VM
JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE
Volume: 4 Issue: 5 Pages: 860-895 (2007)

Giant super-Poissonian shot noise in spin-polarized SET structures
Gorelik, LY; Kulinich, SI; Shekhter, RI; Jonson, M; Vinokur, VM
LOW TEMPERATURE PHYSICS
Volume: 33 Issue: 9 Pages: 757-761 (2007)

Kaiser, R

University of Glasgow
10 records including 8 collaborations: HERMES Collaboration (listed on p.147)

Nonlinear lensing mechanisms in a cloud of cold atoms
Labeyrie, G; Gattobigio, GL; Chaneliere, T; Lippi, L; Ackemann, T; Kaiser, R
EUROPEAN PHYSICAL JOURNAL D
Volume: 41 Issue: 2 Pages: 337-348 (2007)

Nonlinear lensing mechanisms in a cloud of cold atoms
Labeyrie, G; Gattobigio, GL; Chaneliere, T; Lippi, L; Ackemann, T; Kaiser, R
EUROPEAN PHYSICAL JOURNAL D
Volume: 41 Issue: 2 Pages: 337-348 (2007)

Kar, AK

Heriot-Watt University
8 records

Er : Yb-doped oxyfluoride silicate glass waveguide amplifier fabricated using femtosecond laser inscription
Psaila, ND; Thomson, RR; Bookey, HT; Kar, AK; Chiodo, N; Osellame, R; Cerullo, G; Jha, A; Shen, S
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 13 Article Number: 131102 (2007)

Femtosecond laser inscription of low insertion loss waveguides in Z-cut lithium niobate
Bookey, HT; Thomson, RR; Psaila, ND; Kar, AK; Chiodo, N; Osellame, R; Cerullo, G
IEEE PHOTONICS TECHNOLOGY LETTERS
Volume: 19 Issue: 9-12 Pages: 892-894 (2007)

Femtosecond laser writing of waveguides in periodically poled lithium niobate preserving the nonlinear coefficient
Osellame, R; Lobino, M; Chiodo, N; Marangoni, M; Cerullo, G; Ramponi, R; Bookey, HT; Thomson, RR; Psaila, ND; Kar, AK
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 24 Article Number: 241107 (2007)

Thermal sensitivity of tellurite and germanate optical fibers
Li, HX; Lousteau, J; MacPherson, WN; Jiang, X; Bookey, HT; Barton, JS; Jha, A; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8857-8863 (2007)

Ultrafast-laser inscription of a three dimensional fan-out device for multicore fiber coupling applications
Thomson, RR; Bookey, HT; Psaila, ND; Fender, A; Campbell, S; MacPherson, WN; Barton, JS; Reid, DT; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11691-11697 (2007)

Design and realization of an all-fiber broadband tunable gain equalization filter for DWDM signals
Varshney, RK; Nagaraju, B; Singh, A; Pal, BP; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 21 Pages: 13519-13530 (2007)

Exciton-photon coupling in a ZnSe-based microcavity fabricated using epitaxial liftoff
Curran, A; Morrod, JK; Prior, KA; Kar, AK; Warburton, RJ
SEMICONDUCTOR SCIENCE AND TECHNOLOGY
Volume: 22 Issue: 11 Pages: 1189-1192 (2007)

Supercontinuum generation in an ultrafast laser inscribed chalcogenide glass waveguide
Psaila, ND; Thomson, RR; Bookey, HT; Shen, SX; Chiodo, N; Osellame, R; Cerullo, G; Jha, A; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 24 Pages: 15776-15781 (2007)

Karolin, J

University of Strathclyde
1 record

Single molecule level detection of allophycocyanin by surface enhanced resonance Raman scattering
McGuinness, CD; Macmillan, AM; Karolin, J; Smith, WE; Graham, D; Pickup, JC; Birch, DJS
ANALYST
Volume: 132 Issue: 7 Pages: 633-634 (2007)

Kemp, A

University of Strathclyde
2 records

Pulsed pumping of semiconductor disk lasers
Hempler, N; Hopkins, JM; Kemp, AJ; Schulz, N; Rattunde, M; Wagner, J; Dawson, MD; Burns, D
OPTICS EXPRESS
Volume: 15 Pages: 3247-3256 (2007)

Thermal management in disc lasers: doped-dielectric and semiconductor laser gain media in thin-disc and microchip formats
Kemp, AJ; Maclean, AJ; Hopkins, JM; Hastie, JE; Calvez, S; Dawson MD; Burns, D
JOURNAL OF MODERN OPTICS
Volume: 54 Pages: 1669-1676 (2007)

Current Research

Alan Kemp's research focuses on thermal management in diode pumped solid-state lasers. Working with both doped-dielectric and semiconductor gain media, principally in disk geometries, he combines experiment and finite element modelling with the aim of improving the power-scalability and practicality of compact lasers. A major current area of interest is the use of intracavity diamond heatspreaders, particularly the use of high optical quality synthetic diamond.

Kennedy, A

The University of Edinburgh
6 records including 3 collaborations: RBC Collaboration; UKQCD Collaboration (listed on p.150)

Accelerating staggered-fermion dynamics with the rational hybrid Monte Carlo algorithm
Clark, MA; Kennedy, AD
PHYSICAL REVIEW D
Volume: 75 Issue: 1 Article Number: 011502 (2007)

Accelerating dynamical-fermion computations using the rational hybrid Monte Carlo algorithm with multiple pseudofermion fields
Clark, MA; Kennedy, AD
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 5 Article Number: 051601 (2007)

Asymptotics of fixed point distributions for inexact Monte Carlo algorithms
Clark, MA; Kennedy, AD
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 074508 (2007)

Kenway, R

The University of Edinburgh
3 records, all of which are collaborations: RBC Collaboration; UKQCD Collaboration (listed on p.150)

Current Research

Simulation of lattice gauge theories using domain wall fermions in order to understand the physics of light hadrons; to determine phenomenologically important QCD matrix elements needed to search for, or to constrain, physics beyond the Standard Model; and to explore possible models of electroweak symmetry breaking.

Khan, A

University of Glasgow
Zero records for the year 2007

Khan, J

University of Glasgow
2 records

Small-scale energy release driven by supergranular flows on the quiet sun
Potts, HE; Khan, JI; Diver, DA
SOLAR PHYSICS
Volume: 245 Issue: 1 Pages: 55-68 (2007)

The relative timing of supra-arcade downflows in solar flares
Khan, JI; Bain, HM; Fletcher, L
ASTRONOMY & ASTROPHYSICS
Volume: 475 Issue: 1 Pages: 333-340 (2007)

Kirk, KJ

University of the West of Scotland
2 records

High-temperature acoustic emission tests using lithium niobate piezocomposite transducers
Kirk, KJ; Scheit, CW; Schmarje, N
INSIGHT
Volume: 49 Issue: 3 Pages: 142-145 (2007)

Investigation of magnetostrictive microdevices
Scheerschmidt, G; Kirk, KJ; McRobbie, G
IEEE TRANSACTIONS ON MAGNETICS
Volume: 43 Issue: 6 Pages: 2722-2724 (2007)

Koenig, F

University of St Andrews
Zero records for the year 2007

Kontar, EP

University of Glasgow
4 records

Hard X-ray spectra and positions of solar flares observed by RHESSI: photospheric albedo, directivity and electron spectra
Kasparova, J; Kontar, EP; Brown, JC
ASTRONOMY & ASTROPHYSICS
Volume: 466 Issue: 2 Pages: 705-712 (2007)

Solar flare electron spectra at the sun and near the earth
Krucker, S; Kontar, EP; Christe, S; Lin, RP
ASTROPHYSICAL JOURNAL
Volume: 663 Issue: 2 Pages: L109-L112 (2007)

Electron flux spectral imaging of solar flares through regularized analysis of hard X-ray source visibilities
Piana, M; Massone, AM; Hurford, GJ; Prato, M; Emslie, AG; Kontar, EP; Schwartz, RA
ASTROPHYSICAL JOURNAL
Volume: 665 Issue: 1 Pages: 846-855 (2007)

Electron-electron bremsstrahlung emission and the inference of electron flux spectra in solar flares
Kontar, EP; Emslie, AG; Massone, AM; Piana, M; Brown, JC; Prato, M
ASTROPHYSICAL JOURNAL
Volume: 670 Issue: 1 Pages: 857-861 (2007)

Korolkova, N

University of St Andrews
2 records

Cross-Kerr interaction in a four-level atomic system
Sinclair, GF; Korolkova, N
PHYSICAL REVIEW A
Volume: 76 Issue: 3 Article Number: 033803 (2007)

Weak values and continuous-variable entanglement concentration
Menzies, D; Korolkova, N
PHYSICAL REVIEW A
Volume: 76 Issue: 6 Article Number: 062310 (2007)

Krauss, TF

University of St Andrews
20 records

Compact and highly efficient grating couplers between optical fiber and nanophotonic waveguides
Van Laere, F; Roelkens, G; Ayre, M; Schrauwen, J; Taillaert, D; Van Thourhout, D; Krauss, TE; Baets, R
JOURNAL OF LIGHTWAVE TECHNOLOGY
Volume: 25 Issue: 1 Pages: 151-156 (2007)

Flatband slow light in photonic crystals featuring spatial pulse compression and terahertz bandwidth
Settle, MD; Engelen, RJP; Salib, M; Michaeli, A; Kuipers, L; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 1 Pages: 219-226 (2007)

Coupled photonic crystal heterostructure nanocavities
O'Brien, D; Settle, MD; Karle, T; Michaeli, A; Salib, M; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 3 Pages: 1228-1233 (2007)

Compact slanted grating couplers between optical fiber and InP-InGaAsP waveguides
Van Laere, F; Kotlyar, MV; Taillaert, D; Van Thourhout, D; Krauss, TF; Baets, R
IEEE PHOTONICS TECHNOLOGY LETTERS
Volume: 19 Issue: 5-8 Pages: 396-398 (2007)

Dynamics of a two-state quantum dot laser with saturable absorber
Viktorov, EA; Cataluna, MA; O'Faolain, L; Krauss, TF; Sibbett, W; Rafailov, EU; Mandel, P
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 12 Article Number: 121113 (2007)

Self-collimating phatonic crystal polarization beam splitter
Zabelin, V; Dunbar, LA; Le Thomas, N; Houdre, R; Kotlyar, MV; O'Faolain, L; Krauss, TF
OPTICS LETTERS
Volume: 32 Issue: 5 Pages: 530-532 (2007)

Design and fabrication of high-efficiency fibre couplers for nanophotonic devices
Beggs, DM; Ayre, M; Gallagher, DFG; Krauss, TF
MICROELECTRONIC ENGINEERING
Volume: 84 Issue: 5-8 Pages: 1446-1449 (2007)

Shot shifting for nanophotonic applications
Pagnotta, G; O'Faolain, L; O'Brien, D; Krauss, TF
MICROELECTRONIC ENGINEERING
Volume: 84 Issue: 5-8 Pages: 1463-1466 (2007)

Slow light in photonic crystal waveguides
Krauss, TF
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 9 Pages: 2666-2670 (2007)

Direct measurement of the group index of photonic crystal waveguides via Fourier transform spectral interferometry
Gomez-Iglesias, A; O'Brien, D; O'Faolain, L; Miller, A; Krauss, TF
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 26 Article Number: 261107 (2007)

Mode structure of the L3 photonic crystal cavity
Chalcraft, ARA; Lam, S; O'Brien, D; Krauss, TF; Sahin, M; Szymanski, D; Sanvitto, D; Oulton, R; Skolnick, MS; Fox, AM; Whittaker, DM; *et al.*
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 24 Article Number: 241117 (2007)

Silicon based organic semiconductor laser
Vasdekis, AE; Moore, SA; Ruseckas, A; Krauss, TF; Samuel, IDW; Turnbull, GA
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 5 Article Number: 051124 (2007)

Compact polarization rotators for integrated polarization diversity in InP-based waveguides
Beggs, DM; Midrio, M; Krauss, TF
OPTICS LETTERS
Volume: 32 Issue: 15 Pages: 2176-2178 (2007)

Coupling into slow-mode photonic crystal waveguides
Hugonin, JP; Lalanne, P; White, TP; Krauss, TE
OPTICS LETTERS
Volume: 32 Issue: 18 Pages: 2638-2640 (2007)

Exploring light propagating in photonic crystals with Fourier optics
Le Thomas, N; Houdre, R; Kotlyar, MV; O'Brien, D; Krauss, TF
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS
Volume: 72 Issue: 5 Pages: J53-J64 (2007)

Tunable optical delay using photonic crystal heterostructure nanocavities
O'Brien, D; Gomez-Iglesias, A; Settle, MD; Michaeli, A; Salib, M; Krauss, TF
PHYSICAL REVIEW B
Volume: 76 Issue: 11 Article Number: 115110 (2007)

Dependence of extrinsic loss on group velocity in photonic crystal waveguides
O'Faolain, L; White, TP; O'Brien, D; Yuan, XD; Settle, MD; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 20 Pages: 13129-13138 (2007)

The resolution of optical traps created by light induced dielectrophoresis (LIDEP)
Neale, SL; Mazilu, M; Wilson, JIB; Dholakia, K; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 20 Pages: 12619-12626 (2007)

Exploring light propagating in photonic crystals with Fourier optics
Le Thomas, N; Houdre, R; Kotlyar, MV; O'Brien, D; Krauss, TE
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS
Volume: 24 Issue: 12 Pages: 2964-2971 (2007)

Polarized quantum dot emission from photonic crystal nanocavities studied under mode-resonant enhanced excitation
Oulton, R; Jones, BD; Lam, S; Chalcraft, ARA; Szymanski, D; O'Brien, D; Krauss, TF; Sanvitto, D; Fox, AM; Whittaker, DM; Hopkinson, M; Skolnick, MS
OPTICS EXPRESS
Volume: 15 Issue: 25 Pages: 17221-17230 (2007)

Current Research

Photonic crystals are my dominant research theme, with a focus on the functionality they afford; examples include enhanced light-matter interaction in photonic crystal cavities, slow light in photonic crystal waveguides for low power optical switches and nonlinear effects, control of polarisation in polarisation diversity circuits and light extraction for LEDs. The work is highly collaborative and engages with several EU projects, one of which ("SPLASH") we lead. The material platform is increasingly silicon, as well as III-V semiconductors and, more recently, highly nonlinear chalcogenide glasses, all of which are processed to high precision in our in-house nanofabrication facility. A second major strand is research into Lab-on-a-chip devices for biomedical sensing; especially involving on-chip integrated optical trapping.

Labrosse, N

University of Glasgow
1 record

Effect of motions in prominences on the helium resonance lines in the extreme ultraviolet
Labrosse, N; Gouttebroze, P; Vial, JC
ASTRONOMY & ASTROPHYSICS
Volume: 463 Issue: 3 Pages: 1171-1179 (2007)

Land, D

University of Glasgow
1 record

The use of the Allan deviation for the measurement of the noise and drift performance of microwave radiometers
Land, DV; Levick, AP; Whand, J
MEASUREMENT SCIENCE & TECHNOLOGY
Volume: 18 Issue: 7 Pages: 1917-1928 (2007)

Langford, NJ

University of Strathclyde
1 record

Rapid passage induced population transfer and coherences in the 8 micron spectrum of nitrous oxide
Duxbury, G; Langford, NJ; McCulloch, MT; Wright, S
MOLECULAR PHYSICS
Volume: 105 Issue: 5-7 Pages: 741-754 (2007)

Lawrence, A

The University of Edinburgh
6 records

The United Kingdom Infrared Telescope Infrared Deep Sky Survey first data release
Warren, SJ; Hambly, NC; Dye, S; Almaini, O; Cross, NJG; Edge, AC; Foucaud, S; Hewett, PC; Hodgkin, ST; Irwin, MJ; Jameson, RF; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 1 Pages: 213-226 (2007)

The UKIRT wide-field camera
Casali, M; Adamson, A; de Oliveira, CA; Almaini, O; Burch, K; Chuter, T; Elliot, J; Folger, M; Foucaud, S; Hambly, N; Hastie, M; *et al.*
ASTRONOMY & ASTROPHYSICS
Volume: 467 Issue: 2 Pages: 777-784 (2007)

Wide-field surveys and astronomical discovery space
Lawrence, A
ASTRONOMY & GEOPHYSICS
Volume: 48 Issue: 3 Pages: 27-33 (2007)

The UKIRT infrared deep sky survey (UKIDSS)
Lawrence, A; Warren, SJ; Almaini, O; Edge, AC; Hambly, NC; Jameson, RF; Lucas, P; Casali, M; Adamson, A; Dye, S; Emerson, JP; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1599-1617 (2007)

A very cool brown dwarf in UKIDSS DR1
Warren, SJ; Mortlock, DJ; Leggett, SK; Pinfield, DJ; Homeier, D; Dye, S; Jameson, RF; Lodieu, N; Lucas, PW; Adamson, AJ; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 4 Pages: 1400-1412 (2007)

Multiwavelength study of the nuclei of a volume-limited sample of galaxies - II. Optical, infrared and radio observations
Lira, P; Johnson, RA; Lawrence, A; Fernandes, RC
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 382 Issue: 4 Pages: 1552-1590 (2007)

Ledingham, KWD

University of Strathclyde
3 records

Scaling of proton acceleration driven by petawatt-laser-plasma interactions
Robson, L; Simpson, PT; Clarke, RJ; Ledingham, KWD; Lindau, F; Lundh, O; McCanny, T; Mora, P; Neely, D; Wahlstrom, CG; Zepf, M; McKenna, P
NATURE PHYSICS
Volume: 3 Issue: 1 Pages: 58-62 (2007)

Lateral electron transport in high-intensity laser-irradiated foils diagnosed by ion emission
McKenna, P; Carroll, DC; Clarke, RJ; Evans, RG; Ledingham, KWD; Lindau, F; Lundh, O; McCanny, T; Neely, D; Robinson, APL; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 14 Article Number: 145001 (2007)

Laser-driven proton oncology - a unique new cancer therapy?
Ledingham, KWD; Galster, W; Sauerbrey, R
BRITISH JOURNAL OF RADIOLOGY
Volume: 80 Issue: 959 Pages: 855-858 (2007)

Lee, SL

University of St Andrews
2 records

Formation of a nematic fluid at high fields in Sr3Ru2O7
Borzi, RA; Grigera, SA; Farrell, J; Perry, RS; Lister, SJS; Lee, SL; Tennant, DA; Maeno, Y; Mackenzie, AP
SCIENCE
Volume: 315 Issue: 5809 Pages: 214-217 (2007)

Temperature dependence of viscosity and density of viscous liquids determined from thermal noise spectra of uncalibrated atomic force microscope cantilevers
McLoughlin, N; Lee, SL; Hahner, G
LAB ON A CHIP
Volume: 7 Issue: 8 Pages: 1057-1061 (2007)

Leonhardt, U

University of St Andrews
3 records

Optical metamaterials - Invisibility cup
Leonhardt, U
NATURE PHOTONICS
Volume: 1 Issue: 4 Pages: 207-208 (2007)

Quantum levitation by left-handed metamaterials
Leonhardt, U; Philbin, TG
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 254 (2007)

Quantum optics of spatial transformation media
Leonhardt, U; Philbin, TG
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 9(Sp. Iss. SI) Pages: S289-S293 (2007)

Current Research

Ulf Leonhardt is the Chair in Theoretical Physics at the University of St Andrews and a Royal Society-Wolfson Research Merit Award Holder. His research background is in quantum optics. In particular, he is interested in connections between quantum optics and general relativity, in artificial black holes, quantum forces and invisibility. Ulf Leonhardt enjoys imaginative research that connects the practical aspects of physics with abstract ideas, thoughts and stories. He loves to find and use unusual and often unused connections across several areas of physics. For his work on invisibility devices, Scientific American listed him among the top 50 policy business and research leaders of the world in 2006. In 2008 he received a Royal Society Wolfson Research Merit Award and he was recognized as Outstanding Referee for the journals of the American Physical Society.

Liang, X

University of the West of Scotland
3 records

Spectroscopy of neutron-rich P-37
Hodsdon, A; Chapman, R; Liang, X; Haas, F; Ollier, J; Caurier, E; Nowacki, F; Salsac, MD; Azaiez, F; Beghini, S; Behera, B; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 3 Article Number: 034313 (2007)

Recent results on neutron-rich nuclei spectroscopy with the CLARA-PRISMA setup
Gaidea, A; Sahin, E; Valiente-Dobon, JJ; Dewald, A; Farnea, E; De Angelis, G; Axiotis, M; Napoli, DR; Orlandi, R; Della Vedova, F; *et al.*
ACTA PHYSICA POLONICA B
Volume: 38 Issue: 4 Pages: 1311-1319 (2007)

Collapse of the N=28 shell closure in Si-42
Bastin, B; Grevy, S; Sohler, D; Sorlin, O; Dombradi, Z; Achouri, NL; Angelique, JC; Azaiez, F; Baiborodin, D; Borcea, R; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 2 Article Number: 022503 (2007)

Current Research

My current research is focused on study gamma-ray spectroscopy on neutron-rich nuclei. Studies of atomic nuclei far from the valley of stability provide a unique opportunity to increase our understanding of nuclear interactions in extreme conditions and often challenge theoretical models. In exotic nuclei, far from the valley of beta-stability, a small change in the numbers of protons (Z) and neutrons (N) can drastically modify their internal structure and lead to new nuclear phenomena. Fundamental information to understand how nuclear structure and internal interactions between protons and neutrons are affected by such variations is desirable both theoretically and experimentally.

Livingston, K

University of Glasgow
11 records including 9 collaborations: CLAS Collaboration (listed on p.146)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Loa, I
The University of Edinburgh
3 records

Lattice dynamics of incommensurate composite Rb-IV and a realization of the monatomic linear chain model
Loa, I; Lundegaard, LF; McMahon, MI; Evans, SR; Bossak, A; Krisch, M
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 3 Article Number: 035501 (2007)

Crystal structure and the Mott-Hubbard gap in YTiO3 at high pressure
Loa, I; Wang, X; Syassen, K; Roth, H; Lorenz, T; Hanfland, M; Mathis, YL
JOURNAL OF PHYSICS-CONDENSED MATTER
Volume: 19 Issue: 40 Article Number: 406223 (2007)

Structure of sodium above 100 GPa by single-crystal x-ray diffraction
McMahon, MI; Gregoryanz, E; Lundegaard, LF; Loa, I; Guillaume, C; Nelmes, RJ; Kleppe, AK; Amboage, M; Wilhelm, H; Jephcoat, AP
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
Volume: 104 Issue: 44 Pages: 17297-17299 (2007)

Lockerbie, NA
University of Strathclyde
7 records, all of which are collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Long, AR
University of Glasgow
3 records

Monte Carlo simulations of high-performance implant free In0.3Ga0.7As nano-MOSFETs for low-power CMOS applications
Kalna, K; Wilson, JA; Moran, DAJ; Hill, RJW; Long, AR; Droopad, R; Passlack, M; Thayne, IG; Asenov, A
IEEE TRANSACTIONS ON NANOTECHNOLOGY
Volume: 6 Issue: 1 Pages: 106-112 (2007)

GdGaO: A gate dielectric for GaAs metal-oxide-semiconductor field-effect transistors
Holland, M; Stanley, CR; Reid, W; Thayne, I; Paterson, GW; Long, AR; Longo, P; Scott, J; Craven, AJ; Gregory, R
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B
Volume: 25 Issue: 3 Pages: 1024-1028 (2007)

Ga2O3 grown on GaAs by molecular beam epitaxy for metal oxide semiconductor field effect transistors
Holland, M; Stanley, CR; Reid, W; Hill, RJW; Moran, DAJ; Thayne, I; Paterson, GW; Long, AR
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B
Volume: 25 Issue: 5 Pages: 1706-1710 (2007)

Loveday, J

The University of Edinburgh
Zero records for the year 2007

Lu, W

Heriot-Watt University
1 record

Cooling molecules in optical cavities
Lu, W; Zhao, Y; Barker, PF
PHYSICAL REVIEW A
Volume: 76 Issue: 1 Article Number: 013417 (2007)

MacDonald, MP

University of St Andrews
5 records

Cellular and colloidal separation using optical forces
Dholakia, K; MacDonald, MP; Zemanek, P; Cizmar, T
LASER MANIPULATION OF CELLS AND TISSUES METHODS IN CELL BIOLOGY
Volume: 82 Pages: 467-495 (2007)

Fractionation of polydisperse colloid with acousto-optically generated potential energy landscapes
Milne, G; Rhodes, D; MacDonald, M; Dholakia, K
OPTICS LETTERS
Volume: 32 Issue: 9 Pages: 1144-1146 (2007)

Two-photon ablation with 1278 nm laser radiation
Fischer, P; McWilliam, A; Paterson, L; Brown, CTA; Sibbett, W; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S19-S23 (2007)

Colloidal sorting in dynamic optical lattices
Smith, RL; Spalding, GC; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 8(Sp. Iss. SI) Pages: S134-S138 (2007)

Optical separation of cells on potential energy landscapes: Enhancement with dielectric tagging
Dholakia, K; Lee, WM; Paterson, L; MacDonald, MP; McDonald, R; Andreev, I; Mthunzi, P; Brown, CTA; Marchington, RF; Riches, AC
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 6 Pages: 1646-1654 (2007)

Current Research

From January 2005, Mike was an EPSRC Advanced Research Fellow in Medical Instrumentation, Devices and Equipment with the focus of his research being on the development of optically enabled micro-Total Analysis Systems. Mike as research interests in optical and acoustic micromanipulation, surgical technology, light scattering spectroscopy, colloidal dynamics and laser microsurgery. In July 2007, Mike moved his research to the University of Dundee where he is establishing a Biophotonics group to facilitate collaboration with the life sciences.

MacFarlane, JC

University of Strathclyde
2 records

Novel methods of fabrication and metrology of superconducting nanostructures
Hao, L; MacFarlane, JC; Gallop, JC; Cox, D; Joseph-Franks, P; Hutson, D; Chen, R; Lam, SKH
IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT
Volume: 56 Issue: 2 Pages: 392-396 (2007)

Spatial resolution assessment of Nano-SQUIDs made by focused ion beam
Hao, L; MacFarlane, JC; Gallop, JC; Romans, E; Cox, D; Hutson, D; Chen, J
IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY
Volume: 17 Issue: 2 Pages: 742-745 (2007)

Current Research

Dr John MacFarlane (J.C. MacFarlane) is currently Honorary Research Fellow in the Physics Department, University of Strathclyde, having been Visiting Professor here from 1992-1995 and then Senior Research Fellow 1996-2006. Dr MacFarlane also continues to work actively with colleagues at the National Physical Laboratory, Teddington; and in Australia, where he was a member of the LANDTEM team receiving the CSIRO Medal in 2007 for research on applications of superconducting devices to minerals exploration. He is currently a Technical Editor for the Applied Superconductivity Conference in Chicago, August 2008.

MacGregor, IJD

University of Glasgow
3 records

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Double pion photoproduction off Ca-40
Bloch, F; Ahrens, J; Annand, JRM; Beck, R; Fog, LS; Hornidge, D; Janssen, S; Kotulla, M; Krusche, B; McGeorge, JC; MacGregor, IJD; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 2 Pages: 219-228 (2007)

Current Research

My research in nuclear and hadron physics is concentrated at the Mainz electron microtron MAMI-C, which is the world-leading facility at energies up to 1.5 GeV. My work uses the Glasgow tagged photon spectrometer to provide a polarised and unpolarised energy-tagged real photons. Reaction products are detected in the 94% solid angle Crystal Ball detector. Topics of interest include photonuclear reactions and properties of hadrons: the study of nucleon-nucleon correlations, 3-body nuclear interactions, complete measurements of meson photoproduction, eta and eta' production and decay properties, nucleon polarisation, magnetic moments of nucleon resonances and threshold strangeness production.

Mackenzie, AP

University of St Andrews
4 records

Formation of a nematic fluid at high fields in $Sr_3Ru_2O_7$
Borzi, RA; Grigera, SA; Farrell, J; Perry, RS; Lister, SJS; Lee, SL; Tennant, DA; Maeno, Y; Mackenzie, AP
SCIENCE
Volume: 315 Issue: 5809 Pages: 214-217 (2007)

$Ca_3Ru_2O_7$: Electronic instability and extremely strong quasiparticle renormalisation
Kikugawa, N; Rost, A; Baumberger, F; Ingle, NJC; Hossain, MA; Meevasana, W; Shen, KM; Lu, DH; Damascellic, A; Mackenzie, AP; Hussain, Z; Shen, ZX
JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS
Volume: 310 Issue: 2 Pages: 1027-1029 (2007)

Physics - Heavy fermions in the original Fermi liquid
Hooley, CA; Mackenzie, AP
SCIENCE
Volume: 317 Issue: 5843 Pages: 1332-1333 (2007)

Evolution of the Fermi surface and quasiparticle renormalization through a van Hove singularity in $Sr_{2-y}La_yRuO_4$
Shen, KM; Kikugawa, N; Bergemann, C; Balicas, L; Baumberger, F; Meevasana, W; Ingle, NJC; Maeno, Y; Shen, ZX; Mackenzie, AP
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 18 Article Number: 187001 (2007)

Current Research

Professor Andy Mackenzie FRSE is Director of Research in the School of Physics and Astronomy at St Andrews and currently leads the Condensed Matter and Materials Physics Theme of SUPA. His personal research interests concern the low temperature physics of oxide metals and superconductors, and he has close collaborative links with groups at Bristol and Cambridge in the UK, Stanford and Cornell in the USA, and Kyoto in Japan. Prior to coming to St. Andrews in 2001 he was at Cambridge from 1987-1997 and then at Birmingham. Further details can be found at:
http://www.standrews.ac.uk/physics/PHP_Global/Staff_Info.php?id=67

MacLaren, D

University of Glasgow
2 records

Si(111)-H(1 x 1): A mirror for atoms characterized by AFM, STM, He and H-2 diffraction
Barredo, D; Calleja, F; Weeks, AE; Nieto, P; Hinarejos, JJ; Laurent, G; de Parga, ALV; MacLaren, DA; Farias, D; Allison, W; Miranda, R
SURFACE SCIENCE
Volume: 601 Issue: 1 Pages: 24-29 (2007)

Accurate surface profilometry of ultrathin wafers
Weeks, AE; Litwin, D; Galas, J; Surma, B; Piatkowski, B; MacLaren, DA; Allison, W
SEMICONDUCTOR SCIENCE AND TECHNOLOGY
Volume: 22 Issue: 9 Pages: 997-1002 (2007)

MacLaren, I

University of Glasgow
3 records

Titania-doped tantala/silica coatings for gravitational-wave detection
Harry, GM; Abernathy, MR; Becerra-Toledo, AE; Armandula, H; Black, E; Dooley, K; Eichenfield, M; Nwabugwu, C; Villar, A; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 2 Pages: 405-415 (2007)

High-pressure synthesis of crystalline carbon nitride imide, $C_2N_2(NH)$
Horvath-Bordon, E; Riedel, R; McMillan, PF; Kroll, P; Miehe, G; van Aken, PA; Zerr, A; Hoppe, P; Shebanova, O; MacLaren, I; *et al.*
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION
Volume: 46 Issue: 9 Pages: 1476-1480 (2007)

Silica glass segregation in 3 wt% LiF-Doped hot-pressed $Y_2Si_2O_7$
MacLaren, I; Schierholz, R; Trusty, PA; Ponton, CB
JOURNAL OF THE AMERICAN CERAMIC SOCIETY
Volume: 90 Issue: 10 Pages: 3307-3310 (2007)

MacPhee, C

The University of Edinburgh
3 records

Mimicking phosphorylation of alpha B-crystallin affects its chaperone activity
Ecroyd, H; Meehan, S; Horwitz, J; Aquilina, JA; Benesch, JLP; Robinson, CV; MacPhee, CE; Carver, JA
BIOCHEMICAL JOURNAL
Volume: 401 Pages: 129-141 (2007)

Morphology and mechanical stability of amyloid-like peptide fibrils
Mesquida, P; Riener, CK; MacPhee, CE; McKendry, RA
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE
Volume: 18 Issue: 7 Pages: 1325-1331 (2007)

Characterisation of amyloid fibril formation by small heat-shock chaperone proteins human alpha A-, alpha beta- and R120G alpha B-Crystallins
Meehan, S; Knowles, TP; Baldwin, AJ; Smith, JF; Squires, AM; Clements, P; Treweek, TM; Ecroyd, H; Tartaglia, GG; Vendruscolo, M; *et al.*
JOURNAL OF MOLECULAR BIOLOGY
Volume: 372 Issue: 2 Pages: 470-484 (2007)

Current Research

My research involves the study of non-specific polypeptide self-assembly in the form of linear quasi-1D filaments. Aberrant protein aggregation is implicated in a number of human and animal diseases, but the underlying self-assembly mechanisms have implications for the control of nanoscale ordering. The aggregation follows nucleated growth kinetics, and we study the rare events triggering fibril assembly, the structure and physico-mechanical properties of the resulting filaments, and their possible uses as nanoscale materials.

MacPherson, WN

Heriot-Watt University
5 records

Design and fabrication of dielectric diaphragm pressure sensors for applications to shock wave measurement in air
Parkes, W; Djakov, V; Barton, JS; Watson, S; MacPherson, WN; Stevenson, JTM; Dunare, CC
JOURNAL OF MICROMECHANICS AND MICROENGINEERING
Volume: 17 Pages: 1334-1342 (2007)

Multipoint laser vibrometer for modal analysis
MacPherson, WN; Reeves, M; Towers, DP; Moore, AJ; Jones, JDC; Dale, M; Edwards, C
APPLIED OPTICS
Volume: 46 Issue: 16 Pages: 3126-3132 (2007)

Thermal sensitivity of tellurite and germanate optical fibers
Li, HX; Lousteau, J; MacPherson, WN; Jiang, X; Bookey, HT; Barton, JS; Jha, A; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8857-8863 (2007)

Mid-infrared methane detection in a photonic bandgap fiber using a broadband optical parametric oscillator
Kornaszewski, L; Gayraud, N; Stone, JM; MacPherson, WN; George, AK; Knight, JC; Hand, DP; Reid, DT
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11219-11224 (2007)

Ultrafast-laser inscription of a three dimensional fan-out device for multicore fiber coupling applications
Thomson, RR; Bookey, HT; Psaila, ND; Fender, A; Campbell, S; MacPherson, WN; Barton, JS; Reid, DT; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11691-11697 (2007)

Current Research

My research interests lie in application of optics to instrumentation and measurement. In particular, I have an interest in optical fibre sensors. Much of this work has an industry application. It has included pressure and temperature measurement in aeroengine test facilities and explosions, multi-point optical techniques for vibration measurement. Recently I have been involved in research into gas sensing using novel fibres, applications of microstructured fibres, and sensing using multicore fibres. Further information of some of these research areas can be found at http://www.aop.hw.ac.uk/

Mann, R

The University of Edinburgh
4 records

The United Kingdom Infrared Telescope Infrared Deep Sky Survey first data release
Warren, SJ; Hambly, NC; Dye, S; Almaini, O; Cross, NJG; Edge, AC; Foucaud, S; Hewett, PC; Hodgkin, ST; Irwin, MJ; Jameson, RF; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 375 Issue: 1 Pages: 213-226 (2007)

Spatially resolved kinematics and stellar populations of brightest cluster and group galaxies
Brough, S; Proctor, R; Forbes, DA; Couch, WJ; Collins, CA; Burke, DJ; Mann, RG
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 378 Issue: 4 Pages: 1507-1530 (2007)

The SCUBA half degree extragalactic survey - IV. Radio-mm-FIR photometric redshifts
Aretxaga, I; Hughes, DH; Coppin, K; Mortier, AMJ; Wagg, J; Dunlop, JS; Chapin, EL; Eales, SA; Gaztanaga, E; Halpern, M; Ivison, RJ; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 4 Pages: 1571-1588 (2007)

The XMM cluster survey: The dynamical state of XMMXCS J2215.9-1738 at z=1.457
Hilton, M; Collins, CA; Stanford, SA; Lidman, C; Dawson, KS; Davidson, M; Kay, ST; Liddle, AR; Mann, RG; Miller, CJ; Nichol, RC; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 670 Issue: 2 Pages: 1000-1009 (2007)

Marenduzzo, D

The University of Edinburgh
8 records

Dynamics of fibers growing inside soft vesicles
Marenduzzo, D; Orlandini, E
EPL
Volume: 80 Issue: 4 Article Number: 048004 (2007)

Kinetics of solute partitioning into ultrathin Nafion films on electrode surfaces: Theory and experimental measurement
Bertoncello, P; Ciani, I; Marenduzzo, D; Unwin, PR
JOURNAL OF PHYSICAL CHEMISTRY C
Volume: 111 Issue: 1 Pages: 294-302 (2007)

Viscoelastic flows of cholesteric liquid crystals
Orlandini, E; Marenduzzo, D; Yeomans, JM
MOLECULAR CRYSTALS AND LIQUID CRYSTALS
Volume: 465 Pages: 1-14 (2007)

Dynamics of an anchored polymer molecule under an oscillating force
Chattopadhyay, AK; Marenduzzo, D
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 8 Article Number: 088101 (2007)

Hydrodynamics and rheology of active liquid crystals: A numerical investigation
Marenduzzo, D; Orlandini, E; Yeomans, JM
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 11 Article Number: 118102 (2007)

What are the molecular ties that maintain genomic loops?
Marenduzzo, D; Faro-Trindade, I; Cook, PR
TRENDS IN GENETICS
Volume: 23 Issue: 3 Pages: 126-133 (2007)

Nonequilibrium-driven motion in actin networks: Comet tails and moving beads
Burroughs, NJ; Marenduzzo, D
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 23 Article Number: 238302 (2007)

Steady-state hydrodynamic instabilities of active liquid crystals: Hybrid lattice Boltzmann simulations
Marenduzzo, D; Orlandini, E; Cates, ME; Yeomans, JM
PHYSICAL REVIEW E
Volume: 76 Issue: 3 Article Number: 031921 (2007)

Martin, RW

University of Strathclyde
9 records

Dry etching of N-face GaN using two high-density plasma etch techniques
Rizzi, F; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
PHYSICA STATUS SOLID (C)
Volume: 4 Pages: 200-203 (2007)

Localization of excitation in InGaN epilayers
Kachkanov, V; O'Donnell, KP; Pereira, S; Martin, RW
PHILOSOPHICAL MAGAZINE
Volume: 87 Issue: 13 Pages: 1999-2017 (2007)

Combined cathodoluminescence hyperspectral imaging and wavelength dispersive X-ray analysis of minerals
Edwards, PR; Martin, RW; Lee, MR
AMERICAN MINERALOGIST
Volume: 92 Issue: 2-3 Pages: 235-242 (2007)

Identification of cathodoluminescence activators in zoned alkali feldspars by hyperspectral imaging and electron-probe microanalysis
Lee, MR; Parsons, I; Edwards, PR; Martin, RW
AMERICAN MINERALOGIST
Volume: 92 Issue: 2-3 Pages: 243-253 (2007)

(In,Ga)N/GaN microcavities with double dielectric mirrors fabricated by selective removal of an (Al,In)N sacrificial layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Kang, XN; Zhang, GY; Gu, E; Dawson, MD; Watson, IM; Martin, RW
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 11 Article Number: 111112 (2007)

Effect of dislocations on charge carrier mobility-lifetime product in synthetic single crystal diamond
Lohstroh, A; Sellin, PJ; Wang, SG; Davies, AW; Parkin, J; Martin, RW; Edwards, PR
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 10 Article Number: 102111 (2007)

Selective wet etching of lattice-matched AlInN-GaN heterostructures
Rizzi, F; Bejtka, K; Edwards, PR; Martin, RW; Watson, IM
JOURNAL OF CRYSTAL GROWTH
Volume: 300 Issue: 1 Pages: 254-258 (2007)

Thinning of N-face GaN (000(1)over bar) samples by inductively coupled plasma etching and chemomechanical polishing
Rizzi, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW; Kang, XN; Zhang, GY
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A
Volume: 25 Issue: 2 Pages: 252-260 (2007)

Double-dielectric-mirror InGaN/GaN microcavities formed using selective removal of an AlInN layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
SUPERLATTICES AND MICROSTRUCTURES
Volume: 41 Issue: 5-6 Pages: 414-418 (2007)

Martin, V

The University of Edinburgh
38 records including 37 collaborations: CDF Collaboration (listed on p.142): NA48 Collaboration (listed on p.149)

Progress with vertex detector sensors for the International Linear Collider
Worm, S; Banda, Y; Bowdery, C; Buttar, C; Clarke, P; Cussans, D; Damerell, C; Davies, G; Devetak, E; Fopma, J; Foster, B; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 582 Issue: 3 Pages: 839-842 (2007)

Mathieson, K

University of Glasgow
2 records

Performance of ultra-high-density microelectrode arrays
Gunning, DE; Chichilnisky, EJ; Litke, AM; O'Shea, V; Smith, KM; Mathieson, K
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 576 Issue: 1 Pages: 215-219 (2007)

Large-scale multielectrode recording and stimulation of neural activity
Sher, A; Chichilnisky, EJ; Dabrowski, W; Grillo, AA; Grivich, M; Gunning, D; Hottowy, P; Kachiguine, S; Litke, AM; Mathieson, K; Petrusca, D
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 579 Issue: 2 Pages: 895-900 (2007)

Mazilu, M

University of St Andrews
6 records

Measurement of the restoring forces acting on two optically bound particles from normal mode correlations
Metzger, NK; Marchington, RF; Mazilu, M; Smith, RL; Dholakia, K; Wright, EM
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 6 Article Number: 068102 (2007)

Structural characterization of shock-affected sapphire
Mazilu, M; Juodkazis, S; Ebisui, T; Matsuo, S; Misawa, H
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING
Volume: 86 Issue: 2 Pages: 197-200 (2007)

Fluorescence spectroscopy of an in vitro model of human cervical precancer identifies neoplastic phenotype
Martin, SF; Wood, AD; McRobbie, MM; Mazilu, M; McDonald, MP; Samuel, IDW; Herrington, CS
INTERNATIONAL JOURNAL OF CANCER
Volume: 120 Issue: 9 Pages: 1964-1970 (2007)

Fluorescence suppression within Raman spectroscopy using annular beam excitation
Cormack, IG; Mazilu, M; Dholakia, K; Herrington, CS
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 2 Article Number: 023903 (2007)

The resolution of optical traps created by light induced dielectrophoresis (LIDEP)
Neale, SL; Mazilu, M; Wilson, JIB; Dholakia, K; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 20 Pages: 12619-12626 (2007)

Early detection of cervical neoplasia by Raman spectroscopy
Jess, PRT; Smith, DDW; Mazilu, M; Dholakia, K; Riches, AC; Herrington, CS
INTERNATIONAL JOURNAL OF CANCER
Volume: 121 Issue: 12 Pages: 2723-2728 (2007)

McGeorge, JC

University of Glasgow
7 records including 1 collaboration: MAX-LAB NUCLEAR PHYSICS Working Group (listed on p.149)

New results on the Roper resonance and the P-11 partial wave
Sarantsev, AV; Fuchs, M; Kotulla, M; Thoma, U; Ahrens, J; Annand, JRM; Anisovich, AV; Anton, G; Bantes, R; Bartholomy, O; *et al.*
PHYSICS LETTERS B
Volume: 659 Issue: 1-2 Pages: 94-100 (2008)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Double pion photoproduction off Ca-40
Bloch, F; Ahrens, J; Annand, JRM; Beck, R; Fog, LS; Hornidge, D; Janssen, S; Kotulla, M; Krusche, B; McGeorge, JC; MacGregor, IJD; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 2 Pages: 219-228 (2007)

First measurement of the helicity dependence for the gamma p -> p pi(+)pi(-) reaction
Ahrens, J; Altieri, S; Annand, JRM; Arends, HJ; Beck, R; Blackston, MA; Bradtke, C; Braghieri, A; d'Hose, N; Dutz, H; Fix, A; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 34 Issue: 1 Pages: 11-21 (2007)

A microscope for the Glasgow photon tagging spectrometer in Mainz
Reiter, A; Lumsden, PS; Ahrens, J; Annand, JRM; Beck, R; McGeorge, JC; Owens, RO
EUROPEAN PHYSICAL JOURNAL A
Volume: 30 Issue: 2 Pages: 461-467 (2006)

McGloin, D

University of St Andrews
5 records

Vortex-trap-induced fusion of femtoliter-volume aqueous droplets
Lorenz, RM; Edgar, JS; Jeffries, GDM; Zhao, YQ; McGloin, D; Chiu, DT
ANALYTICAL CHEMISTRY
Volume: 79 Issue: 1 Pages: 224-228 (2007)

Direct detection of optical phase conjugation in a colloidal medium
Lopez-Mariscal, C; Gutierrez-Vega, JC; McGloin, D; Dholakia, K
OPTICS EXPRESS
Volume: 15 Issue: 10 Pages: 6330-6335 (2007)

Holographic and single beam optical manipulation of hyphal growth in filamentous fungi
Burnham, DR; Wright, GD; Read, ND; McGloin, D
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 8(Sp. Iss. SI) Pages: S172-S179 (2007)

Spin-to-orbital angular momentum conversion in a strongly focused optical beam
Zhao, YQ; Edgar, JS; Jeffries, GDM; McGloin, D; Chiu, DT
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 7 Article Number: 073901 (2007)

Transverse particle dynamics in a Bessel beam
Milne, G; Dholakia, K; McGloin, D; Volke-Sepulveda, K; Zemanek, P
OPTICS EXPRESS
Volume: 15 Issue: 21 Pages: 13972-13987 (2007)

Current Research

My current research is focussed on the application of optical manipulation and digital microfluidics. A focus is studying the physics of how airborne particles behave in optical traps. Of particular interest are the atmospherically interesting properties of aerosols and whether holographic optical trapping can be used to create chemical femtolitre microreactors. In parallel with this work, I am looking at how droplets in another liquid can be used as miniature test tubes and how optical trapping techniques can be used to facilitate new chemical and biological microreactor and sensing systems. In May 2007 I moved to the University of Dundee.

McGrouther, D

University of Glasgow
1 record

Controlled domain wall injection into ferromagnetic nanowires from an optimized pad geometry
McGrouther, D; McVitie, S; Chapman, JN; Gentils, A
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 2 Article Number: 022506 (2007)

McKee, D

University of Strathclyde
2 records

Determination of biogeochemical properties of marine particles using above water measurements of the degree of polarization at the Brewster angle
Chami, M; McKee, D
OPTICS EXPRESS
Volume: 15 Issue: 15 Pages: 9494-9509 (2007)

Potential impacts of nonalgal materials on water-leaving Sun induced chlorophyll fluorescence signals in coastal waters
McKee, D; Cunningham, A; Wright, D; Hay, L
APPLIED OPTICS
Volume: 46 Issue: 31 Pages: 7720-7729 (2007)

McKenna, P

University of Strathclyde
8 records

Active manipulation of the spatial energy distribution of laser-accelerated proton beams
Carroll, DC; McKenna, P; Lundh, O; Lindau, F; Wahlstrom, CG; Bandyopadhyay, S; Pepler, D; Neely, D; Kar, S; Simpson, PT; *et al.*
PHYSICAL REVIEW E
Volume: 76 Article Number: 065401 (2007)

High harmonics from relativistically oscillating plasma surfaces - a high brightness attosecond source at keV photon energies
Zepf, M; Dromey, B; Kar, S; Bellei, C; Carroll, DC; Clarke, RJ; Green, JS; Kneip, S; Markey, K; Nagel, SR; Simpson, PT; Willingale, L; *et al.*
PLASMA PHYSICS AND CONTROLLED FUSION
Volume: 49 Issue: B Pages: 149-162 (2007)

Low- and medium-mass ion acceleration driven by petawatt laser plasma interactions
McKenna, P; Lindau, F; Lundh, O; Carroll, DC; Clarke, RJ; Ledingham, KWD; McCanny, T; Neely, D; Robinson, APL; Robson, L; *et al.*
PLASMA PHYSICS AND CONTROLLED FUSION
Volume: 49 Issue: B Pages: 223-231 (2007)

Scaling of proton acceleration driven by petawatt-laser-plasma interactions
Robson, L; Simpson, PT; Clarke, RJ; Ledingham, KWD; Lindau, F; Lundh, O; McCanny, T; Mora, P; Neely, D; Wahlstrom, CG; Zepf, M; McKenna, P
NATURE PHYSICS
Volume: 3 Issue: 1 Pages: 58-62 (2007)

Lateral electron transport in high-intensity laser-irradiated foils diagnosed by ion emission
McKenna, P; Carroll, DC; Clarke, RJ; Evans, RG; Ledingham, KWD; Lindau, F; Lundh, O; McCanny, T; Neely, D; Robinson, APL; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 14 Article Number: 145001 (2007)

Spectral control in proton acceleration with multiple laser pulses
Robinson, APL; Neely, D; McKenna, P; Evans, RG
PLASMA PHYSICS AND CONTROLLED FUSION
Volume: 49 Issue: 4 Pages: 373-384 (2007)

Bright multi-keV harmonic generation from relativistically oscillating plasma surfaces
Dromey, B; Kar, S; Bellei, C; Carroll, DC; Clarke, RJ; Green, JS; Kneip, S; Markey, K; Nagel, SR; Simpson, PT; Willingale, L; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 8 Article Number: 085001 (2007)

Influence of shock waves on laser-driven proton acceleration
Lundh, O; Lindau, F; Persson, A; Wahlstrom, CG; McKenna, P; Batani, D
PHYSICAL REVIEW E
Volume: 76 Issue: 2 Article Number: 026404 (2007)

Current Research

Experimental investigations of high energy density plasmas produced by intense laser-matter interactions. Particle acceleration driven by strong electromagnetic fields generated in non-linear relativistic plasma is investigated using large national and international laser systems. Nuclear processes driven by particles and radiation produced in intense laser-matter interactions are studied. Activities in laser-based fusion energy science.

McMahon, M

The University of Edinburgh
4 records

Incommensurate modulations of Bi-III and Sb-II
McMahon, MI; Degtyareva, O; Nelmes, RJ
PHYSICAL REVIEW B
Volume: 75 Issue: 18 Article Number: 184114 (2007)

Lattice dynamics of incommensurate composite Rb-IV and a realization of the monatomic linear chain model
Loa, I; Lundegaard, LF; McMahon, MI; Evans, SR; Bossak, A; Krisch, M
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 3 Article Number: 035501 (2007)

Competition of charge-density waves and superconductivity in sulfur
Degtyareva, O; Magnitskaya, MV; Kohanoff, J; Profeta, G; Scandolo, S; Hanfland, M; McMahon, MI; Gregoryanz, E
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 155505 (2007)

Structure of sodium above 100 GPa by single-crystal x-ray diffraction
McMahon, MI; Gregoryanz, E; Lundegaard, LF; Loa, I; Guillaume, C; Nelmes, RJ; Kleppe, AK; Amboage, M; Wilhelm, H; Jephcoat, AP
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
Volume: 104 Issue: 44 Pages: 17297-17299 (2007)

McNeil, BWJ

University of Strathclyde
3 records

A Far Infrared Super Radiant FEL
Bonifacio, R; McNeil, BWJ; Paes, ACJ; de Salvo, L; Galvão, RMO
INTERNATIONAL JOURNAL OF INFRARED AND MILLIMETER WAVES
Volume: 28 Pages: 699-699 (2007)

An XUV-FEL amplifier seeded using high harmonic generation
McNeil, BWJ; Clarke, JA; Dunning, DJ; Hirst, GJ; Owen, HL; Thompson, NR; Sheehy, B; Williams, PH
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 082 (2007)

A design for the generation of temporally-coherent radiation pulses in the VUV and beyond by a self-seeding high-gain free electron laser amplifier
McNeil, BWJ; Thompson, NR; Dunning, DJ; Karssenberg, JG; van der Slot, PJM; Boller, KJ
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 239 (2007)

Current Research

Much of Brian McNeil's work is based upon collective interactions that occur between charged particle beams and electromagnetic fields. Such interactions form the basis of important generators of coherent electromagnetic radiation, such as the Free-Electron Laser. Similar interactions with classical dielectric particles and cold atoms also occur. Brian is closely involved with the STFC's New Light Source project and collaboration with ASTeC. In addition to work on various aspects of the NLS design, he is investigating new ultra-fast interactions for the next generation of attosecond FELs. He presents post-graduate lectures on FELs at both SUPA and the Cockcroft Institute.

McVitie, S

University of Glasgow
4 records

On the scaling behaviour of cross-tie domain wall structures in patterned NiFe elements
Wiese, N; McVitie, S; Chapman, JN; Capella-Kort, A; Otto, F
EPL
Volume: 80 Issue: 5 Article Number: 057003 (2007)

Controlled domain wall injection into ferromagnetic nanowires from an optimized pad geometry
McGrouther, D; McVitie, S; Chapman, JN; Gentils, A
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 2 Article Number: 022506 (2007)

Micromagnetic reversal behavior of multiscale permalloy elements
Craig, BR; McVitie, S; Chapman, JN; O'Donnell, DO; Johnston, AB
JOURNAL OF APPLIED PHYSICS
Volume: 102 Issue: 1 Article Number: 013911 (2007)

The effect of roughness on the micromagnetic properties of high moment multilayer films
Craig, BR; McVitie, S; Chapman, JN; O'Donnell, DO; Johnston, AB
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 13 Pages: 3991-3997 (2007)

Current Research

My research interest is in the area of magnetic thin films investigated by transmission electron microscopy (TEM). Currently of great interest are magnetic nanowires and systems whose behaviour has been modified by ion beam irradiation. These material systems are of great as potential in spintronic devices. The magnetic structure is probed using the Lorentz imaging modes of TEM on a scale of < 10nm. My interests also include development of these techniques and the extraction of quantitative information on this length scale.

Meiksin, A

The University of Edinburgh
5 records

Measuring the matter density using baryon oscillations in the SDSS
Percival, WJ; Nichol, RC; Eisenstein, DJ; Weinberg, DH; Fukugita, M; Pope, AC; Schneider, DP; Szalay, AS; Vogeley, MS; Zehavi, I; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 657 Issue: 1 Pages: 51-55 (2007)

The shape of the Sloan Digital Sky Survey data release 5 galaxy power spectrum
Percival, WJ; Nichol, RC; Eisenstein, DJ; Frieman, JA; Fukugita, M; Loveday, J; Pope, AC; Schneider, DP; Szalay, AS; Tegmark, M; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 657 Issue: 2 Pages: 645-663 (2007)

Properties of luminous red galaxies in the sloan digital sky survey
Barber, T; Meiksin, A; Murphy, T
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 2 Pages: 787-805 (2007)

Reionization scenarios and the temperature of the intergalactic medium
Tittley, ER; Meiksin, A
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 4 Pages: 1369-1386 (2007)

The Fifth Data Release of the Sloan Digital Sky Survey
Adelman-McCarthy, JK; Agueros, MA; Allam, SS; Anderson, KSJ; Anderson, SF; Annis, J; Bahcall, NA; Bailer-Jones, CAL; Baldry, IK; *et al*.
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 2 Pages: 634-644 (2007)

Miller, A

University of St Andrews
3 records

Direct measurement of the group index of photonic crystal waveguides via Fourier transform spectral interferometry
Gomez-Iglesias, A; O'Brien, D; O'Faolain, L; Miller, A; Krauss, TF
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 26 Article Number: 261107 (2007)

Quantum-confined Stark effect and ultrafast absorption dynamics in bilayer InAs quantum dot waveguide
Malins, DB; Gomez-Iglesias, A; Spencer, P; Clarke, E; Murray, R; Miller, A
ELECTRONICS LETTERS
Volume: 43 Issue: 12 Pages: 686-688 (2007)

Electroabsorption and electrorefraction in an InAs quantum-dot waveguide modulator
Malins, DB; Gomez-Iglesias, A; Rafailov, EU; Sibbett, W; Miller, A
IEEE PHOTONICS TECHNOLOGY LETTERS
Volume: 19 Issue: 13-16 Pages: 1118-1120 (2007)

Current Research

Alan Miller is Professor of Physics and Vice Principal for Research at the University of St Andrews and from 1997 to 2003 was Head of School of Physics and Astronomy. A graduate of The University of Edinburgh (BSc Physics, 1971) and University of Bath (PhD, 1975), his career has included posts at Heriot-Watt University (1974-1979), the Univerityof North Texas (1979-1981), RSRE Malvern (1981-1989) and CREOL, University of Central Florida (1989-2003). He is a Fellow of the Institute of Physics (1989), Royal Society of Edinburgh (1996), Institute of Electrical and Electronics Engineers (1998) and Optical Society of America (2007). He is currently a member of SFC Research and Knowledge Transfer Committee.

Miller, DJ

University of Glasgow
2 records

New measure of fine tuning
Athron, P; Miller, DJ
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 075010 (2007)

Aspects of CP violation in the HZZ coupling at the LHC
Godbole, RM; Miller, DJ; Muhlleitner, MM
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 12 Article Number: 031 (2007)

Current Research

I investigate the collider phenomenology of models beyond the Standard Model, in particular models with extended Higgs sectors and Supersymmetry. Recent topics have included: an investigation of the HZZ vertex tensor structure in order to facilitate the measurement of the Higgs boson CP quantum numbers at the LHC; developing new ways to measure supersymmetric masses in cascade decays at the LHC; the phenomenology of the Next-to-Minimal Supersymmetric Standard Model and other non-minimal supersymmetric extensions; improving definitions of fine tuning in new physics models to make them more quantitative; an investigation of leptogenesis in models of extended supersymmetry.

Monthoux, P

The University of Edinburgh
1 record

Superconductivity without phonons
Monthoux, P; Pines, D; Lonzarich, GG
NATURE
Volume: 450 Pages: 20-27 (2007)

Muheim, F

The University of Edinburgh
68 records including 67 collaborations: BABAR Collaboration (listed on p.134)

Performance of the LHCb RICH photodetectors in a charged particle beam
Adinolfi, M; Rinella, GA; Albrecht, E; Ameri, M; Arnaboldi, C; Bellunato, T; Bibby, J; Blake, T; Cuneo, S; Dickens, J; Easo, S; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 574 Issue: 1 Pages: 39-49 (2007)

Murphy, A

The University of Edinburgh
6 records

The ZEPLIN-III dark matter detector: Instrument design, manufacture and commissioning
Akimov, DY; Alner, GJ; Araujo, HM; Bewick, A; Bungau, C; Burenkov, AA; Carson, MJ; Chagani, H; Chepel, V; Cline, D; Davidge, D; *et al.*
ZEPLIN-II Collaboration
ASTROPARTICLE PHYSICS
Volume: 27 Issue: 1 Pages: 46-60 (2007)

Revised V-45(p,gamma)Cr-46 astrophysical reaction rate
He, JJ; Murphy, ASJ
PHYSICAL REVIEW C
Volume: 75 Issue: 6 Article Number: 068801 (2007)

Limits on spin-dependent WIMP-nucleon cross-sections from the first ZEPLIN-II data
Alner, GJ; Araujo, HM; Bewick, A; Bungau, C; Camanzi, B; Carson, MJ; Cashmore, RJ; Chagani, H; Chepel, V; Cline, D; Davidge, D; *et al.*
ZEPLIN-II Collaboration
PHYSICS LETTERS B
Volume: 653 Issue: 2-4 Pages: 161-166 (2007)

First limits on WIMP nuclear recoil signals in ZEPLIN-II: A two-phase xenon detector for dark matter detection
Alner, GJ; Araujo, HM; Bewick, A; Bungau, C; Camanzi, B; Carson, MJ; Cashmore, RJ; Chagani, H; Chepel, V; Cline, D; Davidge, D; *et al.*
ZEPLIN-II Collaboration
ASTROPARTICLE PHYSICS
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Application of the Thomas-Ehrman level displacement formalism in mirror analogue states
He, JJ; Murphy, ASJ
EUROPEAN PHYSICAL JOURNAL A
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Studies of neutron detection and backgrounds with the DRIFT-IIa dark matter detector
Burgos, S; Forbes, J; Ghag, C; Gold, M; Kudryavtsev, VA; Lawson, TB; Loomba, D; Majewski, P; Muna, D; Murphy, AS; Nicklin, GG; *et al.*
ZEPLIN-II Collaboration
ASTROPARTICLE PHYSICS
Volume: 28 Issue: 4-5 Pages: 409-421 (2007)

Nelmes, RJ

The University of Edinburgh
4 records

Incommensurate modulations of Bi-III and Sb-II
McMahon, MI; Degtyareva, O; Nelmes, RJ
PHYSICAL REVIEW B
Volume: 75 Issue: 18 Article Number: 184114 (2007)

Structure of sodium above 100 GPa by single-crystal x-ray diffraction
McMahon, MI; Gregoryanz, E; Lundegaard, LF; Guillaume, C; Nelmes, RJ; Mezouar, M
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Volume: 104 Issue: 44 Pages: 17297-17299 (2007)

A route to the brightest possible neutron source?
Taylor, A; Dunne, M; Bennington, S; Ansell, S; Gardner, I; Norreys, P; Broome, T; Findlay, D; Nelmes, RJ
SCIENCE
Volume: 315 Issue: 5815 Pages: 1092-1095 (2007)

Some elements go cubic under pressure
Nelmes, RJ
PHYSICS TODAY
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Nevzorov, R

University of Glasgow
6 records

Cosmological constant in SUGRA models and the multiple-point principle
Froggatt, C; Laperashvili, LV; Nevzorov, RB; Nielsen, HB
PHYSICS OF ATOMIC NUCLEI
Volume: 67 Issue: 3 Pages: 582-589 (2004)

Theoretical upper bound on the mass of the LSP in the MNSSM
Hesselbach, S; Miller, DJ; Moortgat-Pick, G; Nevzorov, R; Trusov, A
PHYSICS LETTERS B
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Implementation of the multiple point principle in the two-Higgs doublet model of type II
Froggatt, CD; Laperashvili, L; Nevzorov, R; Nielsen, HB; Sher, M
PHYSICAL REVIEW D
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On the smallness of the cosmological constant in SUGRA models
Froggatt, C; Nevzorov, R; Nielsen, HB
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King, SF; Moretti, S; Nevzorov, R
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Fixed point scenario in the two Higgs doublet model inspired by degenerate vacua
Froggatt, CD; Nevzorov, R; Nielsen, HB; Thompson, D
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Norberg, P

The University of Edinburgh
4 records

Can a large-scale structure probe cosmic microwave background-constrained non-Gaussianity ?
Kang, X; Norberg, P; Silk, J
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
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On the luminosity dependence of the galaxy pairwise velocity dispersion
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ASTROPHYSICAL JOURNAL
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Statistical analysis of galaxy surveys - III. The non-linear clustering of red and blue galaxies in the 2dFGRS
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McCracken, HJ; Peacock, JA; Guzzo, L; Capak, P; Porciani, C; Scoville, N; Aussel, H; Finoguenov, A; James, JB; Kitzbichler, MG; *et al.*
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 1 Pages: 314-319 (2007)

O'Donnell, KP

University of Strathclyde
3 records

Localization of excitation in InGaN epilayers
Kachkanov, V; O'Donnell, KP; Pereira, S; Martin, RW
PHILOSOPHICAL MAGAZINE
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Role of nanoscale strain inhomogeneity on the light emission from InGaN epilayers
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Localization of excitation in InGaN epilayers
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Ogwu, A

University of the West of Scotland
6 records

The effect of shape and surface modification on the corrosion of biomedical nitinol alloy wires exposed to saline solution
Ademosu, O; Ogwu, AA; McLean J; Placido, F
In Jackson, MJ; Ahmed, W (Eds)
SURFACE ENGINEERED SURGICAL TOOLS AND MEDICAL DEVICES
Springer, New York , USA (2007)

Amorphous and Nano-composite Diamond-like carbon coatings for Biomedical applications
Okpalugo, TIT; Ali, N; Ogwu, AA; Kousar Y; Ahmed, W
In Zhang, S; Ali, N (Eds)
NANO-COMPOSITE THIN FILMS AND COATINGS: PROCESSING, PROPERTIES AND PERFORMANCE
Imperial College Press, London (2007)

Electrical resistivity of copper oxide thin films prepared by reactive magnetron sputtering
Ogwu, AA; Darma, TH; Bouquerel, E
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Volume: 24 Issue: 1 Pages: 172-177 (2007)

Endothelial cell compatibility of silicon modified hydrogenated amorphous carbon thin films
Ogwu, AA; Okpalugo, TIT; Ali, N; Maguire, PD; McLaughlin, JAD
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The structure and properties of magnetron sputtered Fe-Cr-Ni coatings containing sigma phase
Mallia, B; Dahm, KL; Ogwu, A; Dearnley, PA
PLASMA PROCESSES AND POLYMERS
Volume: 4 Pages: 113-119 (2007)

Ohberg, P

Heriot-Watt University
5 records

Formation of solitons in atomic Bose-Einstein condensates by dark-state adiabatic passage
Juzeliunas, G; Ruseckas, J; Ohberg, P; Fleischhauer, M
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Volume: 47 Issue: 3 Pages: 351-360 (2007)

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Ohberg, P; Arnold, AS
OPTICS EXPRESS
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Elementary excitations of a Bose-Einstein condensate in an effective magnetic field
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PHYSICAL REVIEW A
Volume: 76 Issue: 5 Article Number: 053626 (2007)

Polarization rotation of slow light with orbital angular momentum in ultracold atomic gases
Ruseckas, J; Juzeliunas, G; Ohberg, P; Barnett, SM
PHYSICAL REVIEW A
Volume: 76 Issue: 5 Article Number: 053822 (2007)

Cold atom dynamics in non-Abelian gauge fields
Jacob, A; Ohberg, P; Juzeliunas, G; Santos, L
APPLIED PHYSICS B-LASERS AND OPTICS
Volume: 89 Issue: 4 Pages: 439-445 (2007)

Oi, DKL

University of Strathclyde
2 records

Operational approach to the Uhlmann holonomy
Aberg, J; Kult, D; Sjoqvist, E; Oi, DKL
PHYSICAL REVIEW A
Volume: 75 Issue: 3 Article Number: 032106 (2007)

Subspace confinement: how good is your qubit?
Devitt, SJ; Schirmer, SG; Oi, DKL; Cole, JH; Hollenberg, LCL
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 384 (2007)

Oppo, GL

University of Strathclyde
6 records

Photonic crystals
Kajari-Schroder, S; Morigi, G; Franke-Arnold, S; Oppo, GL
PHYSICAL REVIEW A
Volume: 75 Issue: 1 Article Number: 013816 (2007)

Probing the dynamics of Bose-Einstein condensates via boundary dissipation
Franzosi, R; Livi, R; Oppo, GL
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS
Volume: 40 Issue: 6 Pages: 1195-1210 (2007)

Statistical regimes of random laser fluctuations
Lepri, S; Cavalieri, S; Oppo, GL; Wiersma, DS
PHYSICAL REVIEW A
Volume: 75 Issue: 6 Article Number: 063820 (2007)

Domainwall dynamics: Growth laws, localized structures and stable droplets
Gomila, D; Colet, P; Miguel, MS; Oppo, GL
EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS
Volume: 146 Pages: 71-86 (2007)

Subcritical patterns and dissipative solitons due to intracavity photonic crystals
Gomila, D; Oppo, GL
PHYSICAL REVIEW A
Volume: 76 Issue: 4 Article Number: 043823 (2007)

Two-dimensional front dynamics and spatial solitons in a nonlinear optical system
Pesch, M; Lange, W; Gomila, D; Ackemann, T; Firth, WJ; Oppo, GL
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 15 Article Number: 153902 (2007)

O'Shea, V

University of Glasgow
13 records including 4 collaborations: ALEPH Collaboration (listed on p.134): ATLAS Collaboration (listed on p.134)

Development of cryogenic Si detectors by CERN RD39 Collaboration for ultra radiation hardness in SLHC environment
Li, Z; Abreu, M; Anbinderis, P; Anbinderis, T; D'Ambrosio, N; de Boer, W; Borchi, E; Borer, K; Bruzzi, M; Buontempo, S; Chen, W; *et al.*
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Volume: 572 Issue: 1 Pages: 305-310 (2007)

GaN as a radiation hard particle detector
Grant, J; Bates, R; Cunningham, W; Blue, A; Melone, J; McEwan, F; Vaitkus, J; Gaubas, E; O'Shea, V
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Volume: 576 Issue: 1 Pages: 60-65 (2007)

Performance of ultra-high-density microelectrode arrays
Gunning, DE; Chichilnisky, EJ; Litke, AM; O'Shea, V; Smith, KM; Mathieson, K
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 576 Issue: 1 Pages: 215-219 (2007)

Simulation results from double-sided 3-D detectors
Pennicard, D; Pellegrini, G; Lozano, M; Bates, R; Parkes, C; O'Shea, V; Wright, V
IEEE TRANSACTIONS ON NUCLEAR SCIENCE
Volume: 54 Issue: 4 Pages: 1435-1443 (2007)

Characterisation of Vanilla - A novel active pixel sensor for radiation detection
Blue, A; Bates, R; Laing, A; Maneuski, D; O'Shea, V; Clark, A; Prydderch, M; Turchetta, R; Arvanitis, C; Bohndiek, S
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Volume: 581 Issue: 1-2 Pages: 287-290 (2007)

Characterization studies of two novel active pixel sensors
Bohndiek, SE; Arvanitis, CD; Royle, GJ; Speller, RD; Clark, AT; Crooks, JP; Prydderch, ML; Turchetta, R; Blue, A; O'Shea, V
OPTICAL ENGINEERING
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Progress with vertex detector sensors for the International Linear Collider
Worm, S; Banda, Y; Bowdery, C; Buttar, C; Clarke, P; Cussans, D; Damerell, C; Davies, G; Devetak, E; Fopma, J; Foster, B; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 582 Issue: 3 Pages: 839-842 (2007)

Recent developments of CERN RD39 cryogenic tracking detectors collaboration - CERN RD39 Collaboration
Rouby, X; Anbinderis, P; Anbinderis, T; D'Ambrosio, N; Bates, R; de Boer, W; Bol, H; Borchi, E; Bruzzi, M; Buontempo, S; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 99-103 (2007)

Recombination characteristics of the proton and neutron irradiated semi-insulating GaN structures
Gaubas, E; Vaitkus, J; Kazlauskas, K; Zukauskas, A; Grant, J; Bates, R; O'Shea, V; Strittmatter, A; Bimberg, D; Gibart, P
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 181-184 (2007)

Current Research

Research interests are focussed on development of novel techniques for radiation detection and implementation of detection systems using new technologies. We are currently working on novel interconnection techniques, and the use of CMOS sensors and photon counting sensors and electronics to implement large area sensor panels. In addition, we are developing detector technologies for use in very harsh radiation environments for use in the next generation of Particle Physics experiments where currently available solution will not survive long enough to take data. These technologies will have broader applications in medical imaging, security applications and environmental monitoring as they are developed.

Padgett, M

University of Glasgow
11 records

Optically controlled grippers for manipulating micron-sized particles
Gibson, G; Barron, L; Beck, F; Whyte, G; Padgett, M
NEW JOURNAL OF PHYSICS
Volume: 9 Article Number: 014 (2007)

An improved algorithm for locating a gas source using inverse methods
Thomson, LC; Hirst, B; Gibson, G; Gillespie, S; Jonathan, P; Skeldon, KD; Padgett, MJ
ATMOSPHERIC ENVIRONMENT
Volume: 41 Issue: 6 Pages: 1128-1134 (2007)

Equivalent geometric transformations for spin and orbital angular momentum of light
Allen, L; Padgett, M
JOURNAL OF MODERN OPTICS
Volume: 54 Issue: 4 Pages: 487-491 (2007)

Portable optical spectroscopy for accurate analysis of ethane in exhaled breath
Patterson, CS; McMillan, LC; Longbottom, C; Gibson, GM; Padgett, MJ; Skeldon, KD
MEASUREMENT SCIENCE & TECHNOLOGY
Volume: 18 Issue: 5 Pages: 1459-1464 (2007)

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Ohberg, P; Arnold, AS
OPTICS EXPRESS
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Parametric resonance of optically trapped aerosols
Di Leonardo, R; Ruocco, G; Leach, J; Padgett, MJ; Wright, AJ; Girkin, JM; Burnham, DR; McGloin, D
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 1 Article Number: 010601 (2007)

Comparison of a high-speed camera and a quadrant detector for measuring displacements in optical tweezers
Keen, S; Leach, J; Gibson, G; Padgett, MJ
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Volume: 9 Issue: 8(Sp. Iss. SI) Pages: S264-S266 (2007)

On the dragging of light by a rotating medium
Gotte, JB; Barnett, SM; Padgett, M
PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES
Volume: 463 Issue: 2085 Pages: 2185-2194 (2007)

Fabrication of terahertz holograms
Walsby, ED; Alton, J; Worrall, CH; Beere, HE; Ritchie, DA; Leach, J; Padgett, M; Cumming, DRS
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B
Volume: 25 Issue: 6 Pages: 2329-2332 (2007)

Eigenmodes of a hydrodynamically coupled micron-size multiple-particle ring
Di Leonardo, R; Keen, S; Leach, J; Saunter, CD; Love, GD; Ruocco, G; Padgett, MJ
PHYSICAL REVIEW E
Volume: 76 Issue: 6 Article Number: 061402 (2007)

The effect of external forces on discrete motion within holographic optical tweezers
Eriksson, E; Keen, S; Leach, J; Goksor, M; Padgett, MJ
OPTICS EXPRESS
Volume: 15 Issue: 26 Pages: 18268-18274 (2007)

Papoff, F

University of Strathclyde
1 record

Signal amplification and control in optical cavities with off-axis feedback
Zambrini, R; Papoff, F
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 6 Article Number: 063907 (2007)

Parkes, C

University of Glasgow
10 records

Search for a fourth generation b '-quark at LEP-II at root s=196-209GeV
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 50 Issue: 3 Pages: 507-518 (2007)

Investigation of colour reconnection in WW events with the DELPHI detector at LEP-2
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 51 Issue: 2 Pages: 249-269 (2007)

Simulation results from double-sided 3-D detectors
Pennicard, D; Pellegrini, G; Lozano, M; Bates, R; Parkes, C; O'Shea, V; Wright, V
IEEE TRANSACTIONS ON NUCLEAR SCIENCE
Volume: 54 Issue: 4 Pages: 1435-1443 (2007)

Study of triple-gauge-boson couplings ZZZ, ZZ gamma and z gamma gamma at LEP
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 51 Issue: 3 Pages: 525-542 (2007)

Z gamma production in e(+) e(-) interactions at root s=183-209 GeV*
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 51 Issue: 3 Pages: 503-523 (2007)

Search for pentaquarks in the hadronic decays of the Z boson with the DELPHI detector at LEP
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
PHYSICS LETTERS B
Volume: 653 Issue: 2-4 Pages: 151-160 (2007)

Simulation and test of 3D silicon radiation detectors
Fleta, C; Pennicard, D; Bates, R; Parkes, C; Pellegrini, G; Lozano, M; Wright, V; Boscardin, M; Betta, GFD; Piemonte, C; *et al.*
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Volume: 579 Issue: 2 Pages: 642-647 (2007)

Study of multi-muon bundles in cosmic ray showers detected with the DELPHI detector at LEP
Abdallah, J; Abreu, P; Adam, W; Adzic, P; Albrecht, T; Alemany-Fernandez, R; Allmendinger, T; Allport, PP; Amaldi, U; Amapane, N; *et al.*
DELPHI Collaboration
ASTROPARTICLE PHYSICS
Volume: 28 Issue: 3 Pages: 273-286 (2007)

Progress with vertex detector sensors for the International Linear Collider
Worm, S; Banda, Y; Bowdery, C; Buttar, C; Clarke, P; Cussans, D; Damerell, C; Davies, G; Devetak, E; Fopma, J; Foster, B; *et al.*
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Volume: 582 Issue: 3 Pages: 839-842 (2007)

Recent developments of CERN RD39 cryogenic tracking detectors collaboration - CERN RD39 Collaboration
Rouby, X; Anbinderis, P; Anbinderis, T; D'Ambrosio, N; Bates, R; de Boer, W; Bol, H; Borchi, E; Bruzzi, M; Buontempo, S; *et al.*
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Volume: 583 Issue: 1(Sp. Iss. SI) Pages: 99-103 (2007)

Paterson, L

Heriot-Watt University
3 records

Optical separation of cells on potential energy landscapes: Enhancement with dielectric tagging
Dholakia, K; Lee, WM; Paterson, L; MacDonald, MP; McDonald, R; Andreev, I; Mthunzi, P; Brown, CTA; Marchington, RF; Riche, AC
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS
Volume: 13 Issue: 6 Pages: 1646-1654 (2007)

Passive optical separation within a 'nondiffracting' light beam
Paterson, L; Papagiakoumou, E; Milne, G; Garces-Chavez, V; Briscoe, T; Sibbett, W; Dholakia, K; Riches, AC
JOURNAL OF BIOMEDICAL OPTICS
Volume: 12 Issue: 5 Article Number: 054017 (2007)

Two-photon ablation with 1278 nm laser radiation
Fischer, P; McWilliam, A; Paterson, L; Brown, CTA; Sibbett, W; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S19-S23 (2007)

Peacock, J

The University of Edinburgh
8 records

COMBO-17 measurements of the effect of environment on the type-dependent galaxy luminosity function
Phleps, S; Wolf, C; Peacock, JA; Meisenheimer, K; van Kampen, E
ASTRONOMY & ASTROPHYSICS
Volume: 468 Issue: 1 Pages: 113-120 (2007)

Testing anthropic predictions for Lambda and the cosmic microwave background temperature
Peacock, JA
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 3 Pages: 1067-1074 (2007)

The angular correlations of galaxies in the COSMOS field
McCracken, HJ; Peacock, JA; Guzzo, L; Capak, P; Porciani, C; Scoville, N; Aussel, H; Finoguenov, A; James, JB; Kitzbichler, MG; *et al.*
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 1 Pages: 314-319 (2007)

The first release COSMOS optical and near-IR data and catalog
Capak, P; Aussel, H; Ajiki, M; McCracken, HJ; Mobasher, B; Scoville, N; Shopbell, P; Taniguchi, Y; Thompson, D; Tribiano, S; *et al.*
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 1 Pages: 99-116 (2007)

The SCUBA half degree extragalactic survey - III. Identification of radio and mid-infrared counterparts to submillimetre galaxies
Ivison, RJ; Greve, TR; Dunlop, JS; Peacock, JA; Egami, E; Smail, I; Ibar, E; van Kampen, E; Aretxaga, I; Babbedge, T; Biggs, AD; *et al.*
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 380 Issue: 1 Pages: 199-228 (2007)

The XMM-Newton wide-field survey in the COSMOS field: Statistical properties of clusters of galaxies
Finoguenov, A; Guzzo, L; Hasinger, G; Scoville, NZ; Aussel, H; Boehringer, H; Brusa, M; Capak, P; Cappelluti, N; Comastri, A; *et al.*
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 1 Pages: 182-195 (2007)

zCOSMOS: A large VLT/VIMOS redshift survey covering 0 < z < 3 in the COSMOS field
Lilly, SJ; Le Fevre, O; Renzini, A; Zamorani, G; Scodeggio, M; Contini, T; Carollo, CM; Hasinger, G; Kneib, JP; Iovino, A; *et al.*
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 172 Issue: 1 Pages: 70-85 (2007)

Measuring the baryon acoustic oscillation scale using the sloan digital sky survey and 2dF galaxy redshift survey
Percival, WJ; Cole, S; Eisenstein, DJ; Nichol, RC; Peacock, JA; Pope, AC; Szalay, AS
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 3 Pages: 1053-1066 (2007)

Current Research

My current work covers a range of areas in cosmology, concentrating on statistical studies of the process of structure formation. I am interested in mapping the galaxy distribution over large volumes, and using the resulting maps to compare with theoretical models based on gravitational collapse of dark matter, measuring how the efficiency of galaxy formation varies between systems of different mass. I have used these methods to help show that the universe is dominated by a homogeneous vacuum energy, and I have explored how we can measure its equation of state using large-scale surveys.

Pedretti, E

University of St Andrews
3 records

Visual/infrared interferometry of Orion Trapezium stars: preliminary dynamical orbit and aperture synthesis imaging of the ?1 Orionis C system
Kraus, S; Balega, YY; Berger, JP; Hofmann, KH; Millan-Gabet, R; Monnier, JD; Ohnaka, K; Pedretti, E; Preibisch, Th; Schertl, D; *et al.*
ASTRONOMOMY & ASTROPHYSICS
Volume: 446 Issue: 2 Pages: 649-659 (2007)

Physical orbit for lambda virginis and a test of stellar evolution models
Zhao, M; Monnier, JD; Torres, G; Boden, AF; Claret, A; Millan-Gabet, R; Pedretti, E; Berger, JP; Traub, WA; Schloerb, FP; *et al.*
ASTROPHYSICAL JOURNAL
Volume: 659 Issue: 1 Pages: 626-641 (2007)

Imaging the surface of Altair
Monnier, JD; Zhao, M; Pedretti, E; Thureau, N; Ireland, M; Muirhead, P; Berger, JP; Millan-Gabet, R; Van Belle, G; ten Brummelaar, T; *et al.*
SCIENCE
Volume: 317 Issue: 5836 Pages: 342-345 (2007)

Pendleton, B

The University of Edinburgh
1 collaboration: RBC Collaboration; UKQCD Collaboration (listed on p.150)

Penedo, JC

University of St Andrews
2 records

Natural Functional Nucleic Acids: Ribozymes and Riboswitches
Tremblay, R; Mulhbacher, J; Blouin, S; Penedo, JC; Lafontaine DA
In Lu, Y; Li, Y (Eds.)
FUNCTIONAL NUCLEIC ACIDS FOR SENSING AND OTHER ANALYTICAL APPLICATIONS
Springer: New York (2007)

Solvent Dependent Photophysics of fac-[Re(CO)3(11,12-X2dppz)(py)]+ (X = H, F or Me)
Dyer, J; Creely, CM; Penedo, JC; Grills, DC; Hudson, S; Matousek, P; Kelly, JM; Parker, AW; Towrie, M; George, MW
PHOTOCHEMICAL AND PHOTOBIOLOGICAL SCIENCES
Volume: 660 Issue: 2 Pages: 1517-1531 (2007)

Phelps, ADR

University of Strathclyde
5 records

Dynamics of excitation of backward waves in long inhomogeneous systems
Savilov, AV; Bespalov, PA; Ronald, K; Phelps, ADR
PHYSICS OF PLASMAS
Volume: 14 Issue: 11 Article Number: 113104 (2007)

Experimental and theoretical studies of a coaxial free-electron maser based on two-dimensional distributed feedback
Konoplev, IV; Cross, AW; Phelps, ADR; He, W; Ronald, K; Whyte, CG; Robertson, CW; MacInnes, P; Ginzburg, NS; Peskov, NY; *et al.*
PHYSICAL REVIEW E
Volume: 76 Issue: 5 Article Number: 056406 (2007)

Generation and application of pseudospark-sourced electron beams
Cross, AW; Yin, H; He, W; Ronald, K; Phelps, ADR; Pitchford, LC
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 7 Pages: 1953-1956 (2007)

Helically corrugated waveguide gyrotron traveling wave amplifier using a thermionic cathode electron gun
Cross, AW; He, W; Phelps, ADR; Ronald, K; Whyte, CG; Young, AR; Robertson, CW; Rafferty, EG; Thomson, J
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 25 Article Number: 253501 (2007)

Study of one-dimensional Bragg structures with localized defect
Konoplev, IV; MacInnes, P; Cross, AW; Phelps, ADR; Ronald, K
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 17 Article Number: 171107 (2007)

Pickard, CJ

University of St Andrews
13 records

First-principles calculations of solid-state O-17 and Si-29 NMR spectra of Mg2SiO4 polymorphs
Ashbrook, SE; Le Polles, L; Pickard, CJ; Berry, AJ; Wimperis, S; Farnan, I
PHYSICAL CHEMISTRY CHEMICAL PHYSICS
Volume: 9 Issue: 13 Pages: 1587-1598 (2007)

NMR crystallography of oxybuprocaine hydrochloride, Modification II degrees
Harris, RK; Cadars, S; Emsley, L; Yates, JR; Pickard, CJ; Jetti, RKR; Griesser, UJ
PHYSICAL CHEMISTRY CHEMICAL PHYSICS
Volume: 9 Issue: 3 Pages: 360-368 (2007)

Graphite intercalation compounds under pressure: A first-principles density functional theory study
Csanyi, G; Pickard, CJ; Simons, BD; Needs, RJ
PHYSICAL REVIEW B
Volume: 75 Issue: 8 Article Number: 085432 (2007)

A density functional study of the C-13 NMR chemical shifts in functionalized single-walled carbon nanotubes
Zurek, E; Pickard, CJ; Autschbach, J
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Volume: 129 Issue: 14 Pages: 4430-4439 (2007)

Calculation of NMR chemical shifts for extended systems using ultrasoft pseudopotentials
Yates, JR; Pickard, CJ; Mauri, F
PHYSICAL REVIEW B
Volume: 76 Issue: 2 Article Number: 024401 (2007)

Resolving structures from powders by NMR crystallography using combined proton spin diffusion and plane wave DFT calculations
Pickard, CJ; Salager, E; Pintacuda, G; Elena, B; Emsley, L
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Volume: 129 Issue: 29 (2007)

Structure of phase III of solid hydrogen
Pickard, CJ; Needs, RJ
NATURE PHYSICS
Volume: 3 Issue: 7 Pages: 473-476 (2007)

Metallization of aluminum hydride at high pressures: A first-principles study
Pickard, CJ; Needs, RJ
PHYSICAL REVIEW B
Volume: 76 Issue: 14 Article Number: 144114 (2007)

O-17 and Si-29 NMR parameters of MgSiO3 phases from high-resolution solid-state NMR spectroscopy and first-principles calculations
Ashbrook, SE; Berry, AJ; Frost, DJ; Gregorovic, A; Pickard, CJ; Readman, JE; Wimperis, S
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Volume: 129 Issue: 43 Pages: 13213-13224 (2007)

A first principles theory of nuclear magnetic resonance J-coupling in solid-state systems
Joyce, SA; Yates, JR; Pickard, CJ; Mauri, F
JOURNAL OF CHEMICAL PHYSICS
Volume: 127 Issue: 20 Article Number: 204107 (2007)

Chemical shift computations on a crystallographic basis: some reflections and comments
Harris, RK; Hodgkinson, P; Pickard, CJ; Yates, JR; Zorin, V
MAGNETIC RESONANCE IN CHEMISTRY
Volume: 45 Pages: S174-S186 (2007)

Theoretical investigations of oxygen-17 NMR chemical shifts to discriminate among helical forms
De Gortari, I; Galvan, M; Ireta, J; Segall, M; Pickard, CJ; Payne, M
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 50 Pages: 13099-13105 (2007)

When is H2O not water?
Pickard, CJ; Needs, RJ
JOURNAL OF CHEMICAL PHYSICS
Volume: 127 Issue: 24 Article Number: 244503 (2007)

Current Research

Obvious, but often overlooked, questions for a condensed matter theorist are (1) 'Why do materials adopt particular crystal structures?' and (2) 'Could we have predicted the structures?' I have recently developed a strikingly simple technique for predicting crystals structures - based on simply throwing atoms into a box and relaxing their positions under calculated quantum mechanical forces and stresses. An application is the elucidation of the structure of the high pressure phase III of solid hydrogen.

Pidgeon, CR

Heriot-Watt University
4 records

Direct determination of ultrafast intersubband hole relaxation times in voltage biased SiGe quantum wells by a density matrix interpretation of femtosecond resolved photocurrent experiments
Rauter, P; Fromherz, T; Binh, NQ; Murdin, BN; Phillips, JP; Pidgeon, CR; Diehl, L; Dehlinger, G; Grutzmacher, D; Zhao, M; Ni, WX; Bauer, G
NEW JOURNAL OF PHYSICS
Volume: 9 Pages: 128 (2007)

Interwell relaxation times in p-Si/SiGe asymmetric quantum well structures: Role of interface roughness
Califano, M; Vinh, NQ; Phillips, PJ; Ikonic, Z; Kelsall, RW; Harrison, P; Pidgeon, CR; Murdin, BN; Paul, DJ; Townsend, P; *et al.*
PHYSICAL REVIEW B
Volume: 75 Issue: 4 Article Number: 045338 (2007)

Spin lifetime in high quality InSb epitaxial layers grown on GaAs
Litvinenko, KL; Nikzad, L; Allam, J; Murdin, BN; Pidgeon, CR; Harris, JJ; Zhang, T; Cohen, LF
JOURNAL OF APPLIED PHYSICS
Volume: 101 Issue: 8 Article Number: 083105 (2007)

Spin dynamics in narrow-gap semiconductor epitaxial layers
Litvinenko, KL; Nikzad, L; Allam, J; Murdin, BN; Pidgeon, CR; Harris, JJ; Cohen, LF
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM
Volume: 20 Issue: 6 Pages: 461-465 (2007)

Current Research

CRP (together with Professor B N Murdin, University of Surrey) is in charge of the EPSRC funded UK 'user station' at the Dutch free electron laser (FELIX) and directs a programme on nonlinear and time-resolved semiconductor spectroscopy there. The programme on electron and spin relaxation studies has been supported by EPSRC and EU grants to Heriot-Watt. My programme at FELIX emphasises two research themes in semiconductor device physics: electron spin relaxation dynamics of narrow gap semiconductor structures, and optically pumped Si/SiGe quantum fountain and impurity laser structures.

Placido, F

University of the West of Scotland
4 records

The effect of shape and surface modification on the corrosion of biomedical nitinol alloy wires exposed to saline solution
Ademosu, O; Ogwu, AA; McLean J; Placido, F
In Jackson, MJ; Ahmed, W (Eds)
SURFACE ENGINEERED SURGICAL TOOLS AND MEDICAL DEVICES
Springer, New York , USA (2007)

Multilayer complex optical filters prepared by reactive evaporation
Asghar, MH; Placido, F; Naseem, S
OPTICAL ENGINEERING
Volume: 46 Issue: 2 Article Number: 023802 (2007)

Reactively evaporated multilayer antireflection coatings for Ge optical window
Asghar, MH; Placido, F; Naseem, S
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 7 Pages: 2065-2070 (2007)

All in the detail
Placido, F
MATERIALS WORLD
Volume: 15 Issue: 11 Pages: 30-31 (2007)

Playfer, S

The University of Edinburgh
66 records, all of which are collaborations: BABAR Collaboration (listed on p.134)

Plehn, T

The University of Edinburgh
5 records

Four generations and Higgs physics
Kribs, GD; Plehn, T; Spannowsky, M; Tait, TMP
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 075016 (2007)

Squark and gluino production with jets
Plehn, T; Rainwater, D; Skands, P
PHYSICS LETTERS B
Volume: 645 Issue: 2-3 Pages: 217-221 (2007)

Maximum significance at the LHC and Higgs decays to muons
Cranmer, K; Plehn, T
EUROPEAN PHYSICAL JOURNAL C
Volume: 51 Issue: 2 Pages: 415-420 (2007)

MadGraph/MadEvent v4: the new web generation
Alwall, J; Demin, P; de Visscher, S; Frederix, R; Herquet, M; Maltoni, F; Plehn, T; Rainwaterd, DL; Stelzer, T
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 9 Article Number: 028 (2007)

Same-sign charginos and majorana neutralinos at the CERN LHC
Alwall, J; Rainwater, D; Plehn, T
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 055006 (2007)

Plissi, M

University of Glasgow
8 records including 6 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Novel sensing and control schemes for a three-mirror coupled cavity
Huttner, SH; Barr, B; Plissi, MV; Taylor, JR; Sorazu, B; Strain, KA
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 15 Pages: 3825-3836 (2007)

Optical modulation techniques for length sensing and control of optical cavities
Barr, BW; Huttner, SH; Taylor, JR; Sorazu, B; Plissi, MV; Strain, KA
APPLIED OPTICS
Volume: 46 Issue: 31 Pages: 7739-7745 (2007)

Poon, W

The University of Edinburgh
10 records

A finite-cluster phase in lambda-DNA-coated colloids
Schmatko, T; Bozorgui, B; Geerts, N; Frenkel, D; Eiser, E; Poon, WCK
SOFT MATTER
Volume: 3 Issue: 6 Pages: 703-706 (2007)

Bicontinuous emulsions stabilized solely by colloidal particles
Herzig, EM; White, KA; Schofield, AB; Poon, W; Clegg PS
NATURE MATERIALS
Volume: 6 Pages: 966-971 (2007)

Emulsification of partially miscible liquids using colloidal particles: Nonspherical and extended domain structures
Clegg, PS; Herzig, EM; Schofield, AB; Egelhaaf, SU; Horozov, TS; Binks, BP; Cates, ME; Poon, WCK
LANGMUIR
Volume: 23 Issue: 11 Pages: 5984-5994 (2007)

Optical tweezer micromanipulation of filamentous fungi
Wright, GD; Arlt, J; Poon, WCK; Read, ND
FUNGAL GENETICS AND BIOLOGY
Volume: 44 Issue: 1 Pages: 1-13 (2007)

Yielding and Crystallization of colloidal gels under oscillatory shear
Sminth, PA; Petekidis, G; Egelhaaf, SU; Poon, WCK
PHYSICAL REVIEW E
Volume: 76 Article Number: 041402 (2007)

Model of hyphal tip growth involving microtubule-based transport
Sugden, KEP; Evans, MR; Poon, WCK; Read, ND
PHYSICAL REVIEW E
Volume: 75 Issue: 3 Article Number: 031909 (2007)

Shear zones and wall slip in the capillary flow of concentrated colloidal suspensions
Isa, L; Besseling, R; Poon, WCK
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 19 Article Number: 198305 (2007)

Three-dimensional imaging of colloidal glasses under steady shear
Besseling, R; Weeks, ER; Schofield, AB; Poon, WCK
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 2 Article Number: 028301 (2007)

Protein phase behavior and crystallization: Effect of glycerol
Sedgwick, H; Cameron, JE; Poon, WCK; Egelhaaf, SU
JOURNAL OF CHEMICAL PHYSICS
Volume: 127 Issue: 12 Article Number: 125102 (2007)

Spinodal decomposition in a model colloid-polymer mixture in microgravity
Bailey, AE; Poon, WCK; Christianson, RJ; Schofield, AB; Gasser, U; Prasad, V; Manley, S; Segre, PN; Cipelletti, L; Meyer, WV; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 20 Article Number: 205701 (2007)

Prior, K

Heriot-Watt University
3 records

Exciton-photon coupling in a ZnSe-based microcavity fabricated using epitaxial liftoff
Curran, A; Morrod, JK; Prior, KA; Kar, AK; Warburton, RJ
SEMICONDUCTOR SCIENCE AND TECHNOLOGY
Volume: 22 Pages: 1189-1192 (2007)

MBE growth of MgS nanowires characterised using AFM
Moug, RT; Bradford, C; Prior, KA
JOURNAL OF CRYSTAL GROWTH
Volume: 301-302 Pages: 289-292 (2007)

Study of structural transition from metastable zinc-blende to rock-salt crystal in MBE MgS/ZnSe/GaAs multilayer system
Nasi, L; Bocchi, C; Catellani, A; Germini, F; Morrod, JK; Prior, KA; Calestani, G
APPLIED PHYSICAL LETTERS
Volume: 91 Article Number: 111908 (2007)

Pusey, P

The University of Edinburgh
1 record

Spinodal decomposition in a model colloid-polymer mixture in microgravity
Bailey, AE; Poon, WCK; Christianson, RJ; Schofield, AB; Gasser, U; Prasad, V; Manley, S; Segre, PN; Cipelletti, L; Meyer, WV; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 20 Article Number: 205701 (2007)

Reid, DT

Heriot-Watt University
9 records

Three-dimensional nanoscale subsurface optical imaging of silicon circuits
Ramsay, E; Serrels, KA; Thomson, MJ; Waddie, AJ; Taghizadeh, MR; Warburton, RJ; Reid, DT
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 13 Article Number: 131101 (2007)

Testing the parametric energy conservation law in a femtosecond optical parametric oscillator
Sun, JH; Gale, BJS; Reid, DT
OPTICS EXPRESS
Volume: 15 Issue: 7 Pages: 4378-4384 (2007)

Coherent synthesis using carrier-envelope phase-controlled pulses from a dual-color femtosecond optical parametric oscillator
Sun, J; Gale, BJS; Reid, DT
OPTICS LETTERS
Volume: 32 Issue: 11 Pages: 1396-1398 (2007)

Composite frequency comb spanning 0.4-2.4 μm from a phase-controlled femtosecond Ti : sapphire laser and synchronously pumped optical parametric oscillator
Sun, JH; Gale, BJS; Reid, DT
OPTICS LETTERS
Volume: 32 Issue: 11 Pages: 1414-1416 (2007)

Monolithic optical parametric oscillator using chirped quasi-phase matching
Tillman, KA; Reid, DT
OPTICS LETTERS
Volume: 32 Issue: 11 Pages: 1548-1550 (2007)

Mid-infrared methane detection in a photonic bandgap fiber using a broadband optical parametric oscillator
Kornaszewski, L; Gayraud, N; Stone, JM; MacPherson, WN; George, AK; Knight, JC; Hand, DP; Reid, DT
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11219-11224 (2007)

Three-dimensional nanometric sub-surface imaging of a silicon flip-chip using the two-photon optical beam induced current method
Ramsay, E; Serrels, KA; Thomson, MJ; Waddle, AJ; Warburton, RJ; Taghizadeh, MR; Reid, DT
MICROELECTRONICS RELIABILITY
Volume: 47 Issue: 9-11(Sp. Iss. SI) Pages: 1534-1538 (2007)

Ultrafast-laser inscription of a three dimensional fan-out device for multicore fiber coupling applications
Thomson, RR; Bookey, HT; Psaila, ND; Fender, A; Campbell, S; MacPherson, WN; Barton, JS; Reid, DT; Kar, AK
OPTICS EXPRESS
Volume: 15 Issue: 18 Pages: 11691-11697 (2007)

Direct optimization of femtosecond laser ablation using adaptive wavefront shaping
Campbell, S; Triphan, SMF; El-Agmy, R; Greenaway, AH; Reid, DT
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 11 Pages: 1100-1104 (2007)

Current Research

Research in the Ultrafast Optics Group at Heriot-Watt University covers applications of femtosecond laser in semiconductor microscopy, laser machining, waveguide creation, frequency-comb generation, coherent pulse synthesis and pulse shaping using adaptive optics and engineered nonlinear crystals. For a full description of current work, visit: http://www.phy.hw.ac.uk/resrev/ufast

Rice, WKM

The University of Edinburgh
2 records

The role of the energy equation in the fragmentation of protostellar discs during stellar encounters
Lodato, G; Meru, F; Clarke, CJ; Rice, WKM
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 2 Pages: 590-598 (2007)

The circumbinary disk of HD 98800B: Evidence for disk warping
Akeson, RL; Rice, WKM; Boden, AF; Sargent, AI; Carpenter, JM; Bryden, G
ASTROPHYSICAL JOURNAL
Volume: 670 Issue: 2 Pages: 1240-1246 (2007)

Current Research

Current research is focused in a number of areas. There is ongoing work to model and understand the evolution of self-gravitating protoplanetary discs, especially when considering more realistic initial conditions. A new project will also start investigating the role of convection in self-gravitating discs, to see if this can play a significant role in energy transport. Related to this is a project looking at the evolution of close-in giant planets, more commonly known as ‘hot Jupiters’ to try and understand how they get to their current positions.

Riis, E

University of Strathclyde
2 records

Novel gain medium design for short-wavelength vertical-external-cavity surface-emitting laser
McGinily, SJ; Abram, RH; Gardner, KS; Riis, E; Ferguson, AI; Roberts, JS
IEEE JOURNAL OF QUANTUM ELECTRONICS
Volume: 43 Issue: 5-6 Pages: 445-450 (2007)

Tunable, single-frequency, diode-pumped 2.3 mu VECSEL
Hopkins, JM; Maclean, AJ; Burns, D; Riis, E; Schulz, N; Rattunde, M; Manz, C; Kohler, K; Wagner, J
OPTICS EXPRESS
Volume: 15 Issue: 13 Pages: 8212-8217 (2007)

Robb, GRM

University of Strathclyde
2 records

Collective Atomic Recoil Lasing with a Partially Coherent Pump
Robb, GRM; Firth, WJ
PHYSICAL REVIEW LETTERS
Volume: 99 Article Number: 253601 (2007)

Qfel: a Numerical Code for Multi-Dimensional Simulation of Free Electron Lasers in the Quantum Regime
Schiavi, A; Piovella, N; Robb, GRM; Bonifacio, R
INTERNATIONAL JOURNAL OF MODERN PHYSICS A
Volume: 22 Issue: 23 Pages: 4245-4253 (2007)

Robertson, D

University of Glasgow
Zero records for the year 2007

Robertson, NA

University of Glasgow
6 records, all of which are collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Rolinski, OJ

University of Strathclyde
1 record

Human serum albumin and quercetin interactions monitored by time-resolved fluorescence: evidence for enhanced discrete rotamer conformations
Rolinski, OJ; Martin, A; Birch, DJS
JOURNAL OF BIOMEDICAL OPTICS
Volume: 12 Issue: 3 Article Number: 034013 (2007)

Ronald, K

University of Strathclyde
5 records

Generation and application of pseudospark-sourced electron beams
Cross, AW; Yin, H; He, W; Ronald, K; Phelps, ADR; Pitchford, LC
JOURNAL OF PHYSICS D-APPLIED PHYSICS
Volume: 40 Issue: 7 Pages: 1953-1956 (2007)

Helically corrugated waveguide gyrotron traveling wave amplifier using a thermionic cathode electron gun
Cross, AW; He, W; Phelps, ADR; Ronald, K; Whyte, CG; Young, AR; Robertson, CW; Rafferty, EG; Thomson, J
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 25 Article Number: 253501 (2007)

Study of one-dimensional Bragg structures with localized defect
Konoplev, IV; MacInnes, P; Cross, AW; Phelps, ADR; Ronald, K
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 17 Article Number: 171107 (2007)

Dynamics of excitation of backward waves in long inhomogeneous systems
Savilov, AV; Bespalov, PA; Ronald, K; Phelps, ADR
PHYSICS OF PLASMAS
Volume: 14 Issue: 11 Article Number: 113104 (2007)

Experimental and theoretical studies of a coaxial free-electron maser based on two-dimensional distributed feedback
Konoplev, IV; Cross, AW; Phelps, ADR; He, W; Ronald, K; Whyte, CG; Robertson, CW; MacInnes, P; Ginzburg, NS; Peskov, NY; *et al.*
PHYSICAL REVIEW E
Volume: 76 Issue: 5 Article Number: 056406 (2007)

Rosner, G

University of Glasgow
18 records including 16 collaborations: CLAS Collaboration (listed on p.146): HERMES Collaboration (listed on p.147)

Beam-helicity asymmetry in photon and pion electroproduction in the Delta (1232)-resonance region at Q(2)=0.35(GeV/c)(2)
Bensafa, IK; Achenbach, P; Antelo, MA; Ayerbe, C; Baumann, D; Bohm, R; Bosnar, D; Burtin, E; Defay, X; D'Hose, N; Ding, M; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 1 Pages: 69-75 (2007)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Rowan, S

University of Glasgow
10 records including 6 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Titania-doped tantala/silica coatings for gravitational-wave detection
Harry, GM; Abernathy, MR; Becerra-Toledo, AE; Armandula, H; Black, E; Dooley, K; Eichenfield, M; Nwabugwu, C; Villar, A; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 2 Pages: 405-415 (2007)

Influence of temperature and hydroxide concentration on the settling time of hydroxy-catalysis bonds
Reid, S; Cagnoli, J; Elliffe, E; Faller, J; Hough, J; Martin, I; Rowan, S
PHYSICS LETTERS A
Volume: 363 Issue: 5-6 Pages: 341-345 (2007)

Charge measurement and mitigation for the main test masses of the GEO 600 gravitational wave observatory
Hewitson, M; Danzmann, K; Grote, H; Hild, S; Hough, J; Lueck, H; Rowan, S; Smith, JR; Strain, KA; Willke, B
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 24 Pages: 6379-6391 (2007)

The GEO 600 core optics
Winkler, W; Danzmann, K; Grote, H; Hewitson, M; Hild, S; Hough, J; Luck, H; Malec, M; Freise, A; Mossavi, K; Rowan, S; Rudiger, A; *et al.*
OPTICS COMMUNICATIONS
Volume: 280 Issue: 2 Pages: 492-499 (2007)

Current Research

My research is focused on reducing thermal noise in interferometric gravitational wave detectors. Currently this is directed towards two main areas. Firstly, installation of developments of instrumentation conceived for the UK-German GEO detector into the larger US LIGO detectors, to form an Advanced LIGO system capable of 'seeing' astrophysical sources in a 1000 times greater volume of the Universe than current detectors. Secondly, my current research is targeted at enabling a future European detector on the post-2010 timescale, with a design study for such a '3rd generation' detector under the EC Framework 7 program recently approved for funding.

Ruddock, IS

University of Strathclyde
1 record

Thermal effects observable during quasi-phasematched second harmonic generation in periodically poled crystal fibres
Renwick, EK; Ruddock, IS
OPTICAL AND QUANTUM ELECTRONICS
Volume: 39 Issue: 14 Pages: 1215-1222 (2007)

Samuel, IDW

University of St Andrews
16 records

Solution processable phosphorescent rhenium(I) dendrimers
Pu, YJ; Harding, RE; Stevenson, SG; Namdas, EB; Tedeschi, C; Markham, JPJ; Rummings, RJ; Burn, PL; Samuel, IDW
JOURNAL OF MATERIALS CHEMISTRY
Volume: 17 Issue: 40 Pages: 4255-4264 (2007)

Tuned light emission from nanoparticles of cadmium chalcogenides and nanostructures in indium nitride
Cheng, G; Andre, P; Firth, AV; Khanna, PK; Zhou, WZ; Samuel, IDW; Cole-Hamilton, DJ
SYNTHESIS AND REACTIVITY IN INORGANIC METAL-ORGANIC AND NANO-METAL CHEMISTRY
Volume: 37 Issue: 5 Pages: 309-313 (2007)

A fluorescence-resonance-energy-transfer-based protease activity assay and its use to monitor paralog-specific small ubiquitin-like modifier processing
Martin, SF; Hattersley, N; Samuel, IDW; Hay, RT; Tatham, MH
ANALYTICAL BIOCHEMISTRY
Volume: 363 Issue: 1 Pages: 83-90 (2007)

Fluidic fibre dye lasers
Vasdekis, AE; Town, GE; Turnbull, GA; Samuel, IDW
OPTICS EXPRESS
Volume: 15 Issue: 7 Pages: 3962-3967 (2007)

Organic semiconductor lasers
Samuel, IDW; Turnbull, GA
CHEMICAL REVIEWS
Volume: 107 Issue: 4 Pages: 1272-1295 (2007)

Fluorescence spectroscopy of an in vitro model of human cervical precancer identifies neoplastic phenotype
Martin, SF; Wood, AD; McRobbie, MM; Mazilu, M; McDonald, MP; Samuel, IDW; Herrington, CS
INTERNATIONAL JOURNAL OF CANCER
Volume: 120 Issue: 9 Pages: 1964-1970 (2007)

Highly branched phosphorescent dendrimers for efficient solution-processed organic light-emitting diodes
Bera, RN; Cumpstey, N; Burn, PL; Samuel, IDW
ADVANCED FUNCTIONAL MATERIALS
Volume: 17 Issue: 7 Pages: 1149-1152 (2007)

Amplification of optical pulse sequences at a high repetition rate in a polymer slab waveguide
Amarasinghe, D; Ruseckas, A; Vasdekis, AE; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 1 Article Number: 011105 (2007)

Silicon based organic semiconductor laser
Vasdekis, AE; Moore, SA; Ruseckas, A; Krauss, TF; Samuel, IDW; Turnbull, GA
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 5 Article Number: 051124 (2007)

The development of light-emitting dendrimers for displays
Burn, PL; Lo, SC; Samuel, IDW
ADVANCED MATERIALS
Volume: 19 Issue: 13 Pages: 1675-1688 (2007)

Amplified spontaneous emission and lasing properties of bisfluorene-cored dendrimers
Ribierre, JC; Tsiminis, G; Richardson, S; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 8 Article Number: 081108 (2007)

Light fantastic
Samuel, I
MATERIALS WORLD
Volume: 15 Issue: 8 Pages: 28-30 (2007)

Effect of generation and soft lithography on semiconducting dendrimer lasers
Lawrence, JR; Namdas, EB; Richards, GJ; Burn, PL; Samuel, IDW
ADVANCED MATERIALS
Volume: 19 Issue: 19 (2007)

Wavelength conversion from silica to polymer optical fibre communication wavelengths via ultrafast optical gain switching in a distributed feedback polymer laser
Xia, R; Cheung, C; Ruseckas, A; Amarasinghe, D; Samuel, IDW; Bradley, DDC
ADVANCED MATERIALS
Volume: 19 Issue: 22 (2007)

Electronically asymmetric poly(1,4-phenylenevinylene)s for photovoltaic cells
Lochab, B; Burn, PL; Barkhouse, A; Kirov, KR; Assender, HE; Keeble, DJ; Thomsen, EA; Lewis, AJ; Samuel, IDW
ORGANIC ELECTRONICS
Volume: 8 Issue: 6 Pages: 801-812 (2007)

Improved operational lifetime of semiconducting polymer lasers by encapsulation
Richardson, S; Gaudin, OPM; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 26 Article Number: 261104 (2007)

Saxon, DH

University of Glasgow
22 records including 21 collaborations: ATLAS Collaboration (listed on p.134): ZEUS Collaboration (listed on p.151)

Structure functions at HERA
Saxon, DH
EUROPEAN PHYSICAL JOURNAL A
Volume: 31 Issue: 4 Pages: 566-571 (2007)

Scholz, A

University of St Andrews
8 records

A systematic survey for infrared star clusters with vertical bar b vertical bar < 20 degrees using 2MASS
Froebrich, D; Scholz, A; Raftery, CL
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 2 Pages: 399-408 (2007)

Evolution of brown dwarf disks: A Spitzer survey in Upper Scorpius
Scholz, A; Jayawardhana, R; Wood, K; Meeus, G; Stelzer, B; Walker, C; O'Sullivan, M
ASTROPHYSICAL JOURNAL
Volume: 660 Issue: 2 Pages: 1517-1531 (2007)

FSR 1735 - a new globular cluster candidate in the inner Galaxy
Froebrich, D; Meusinger, H; Scholz, A
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 1 Pages: L54-L58 (2007)

Rotation and activity of preymain-sequence stars
Scholz, A; Coffey, J; Brandeker, A; Jayawardhana, R
ASTROPHYSICAL JOURNAL
Volume: 662 Issue: 2 Pages: 1254-1267 (2007)

The first rotation periods in Praesepe
Scholz, A; Eisloffel, J
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 381 Issue: 4 Pages: 1638-1646 (2007)

A comprehensive view of circumstellar disks in Chamaeleon I: Infrared excess, accretion signatures, and binarity
Damjanov, I; Jayawardhana, R; Scholz, A; Ahmic, M; Nguyen, DC; Brandeker, A; van Kerkwijk, MH
ASTROPHYSICAL JOURNAL
Volume: 670 Issue: 2 Pages: 1337-1346 (2007)

Emission line variability of the accreting young brown dwarf 2MASSW J1207334-393254: From hours to years
Stelzer, B; Scholz, A; Jayawardhana, R
ASTROPHYSICAL JOURNAL
Volume: 671 Issue: 1 Pages: 842-852 (2007)

Multiplicity among young brown dwarfs and very low mass stars
Ahmic, M; Jayawardhana, R; Brandeker, A; Scholz, A; Van Kerkwijk, MH; Delgado-Donate, E; Froebrich, D
ASTROPHYSICAL JOURNAL
Volume: 671 Issue: 2 Pages: 2074-2081 (2007)

Scott, J
University of Glasgow
1 record

GdGaO: A gate dielectric for GaAs metal-oxide-semiconductor field-effect transistors
Holland, M; Stanley, CR; Reid, W; Thayne, I; Paterson, GW; Long, AR; Longo, P; Scott, J; Craven, AJ; Gregory, R
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B
Volume: 25 Issue: 3 Pages: 1024-1028 (2007)

Seitz, B
University of Glasgow
6 records including 5 collaborations: HERMES Collaboration (listed on p.147)

First measurement of the helicity dependence for the gamma p -> p pi(+)pi(-) reaction
Ahrens, J; Altieri, S; Annand, JRM; Arends, HJ; Beck, R; Blackston, MA; Bradtke, C; Braghieri, A; d'Hose, N; Dutz, H; Fix, A; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 34 Issue: 1 Pages: 11-21 (2007)

Sherlock, M
University of Strathclyde
2 records

Magnetic collimation of fast electrons produced by ultraintense laser irradiation by structuring the target composition
Robinson, APL; Sherlock, M
PHYSICS OF PLASMAS
Volume: 14 Issue: 8 Article Number: 083105 (2007)

Non-Spitzer return currents in intense laser-plasma interactions
Sherlock, M; Bell, AR; Kingham, RJ; Robinson, APL; Bingham, R
PHYSICS OF PLASMAS
Volume: 14 Issue: 10 Article Number: 102708 (2007)

Shotter, A
The University of Edinburgh
Zero records for the year 2007

Sibbett, W
University of St Andrews
13 records

Anomalous dynamic characteristics of semiconductor quantum-dot lasers generating on two quantum states
Sokolovskii, GS; Cataluna, MA; Deryagin, AG; Kuchinskii, VI; Novikov, II; Maksimov, MV; Zhukov, AE; Ustinov, VM; Sibbett, W; Rafailov, EU
TECHNICAL PHYSICS LETTERS
Volume: 33 Issue: 1 Pages: 4-7 (2007)

Efficient doubling of femtosecond pulses in aperiodically and periodically poled KTP crystals
Lagatsky, AA; Brown, CTA; Sibbett, W; Holmgren, SJ; Canalias, C; Pasiskevicius, V; Laurell, F; Rafailov, EU
OPTICS EXPRESS
Volume: 15 Issue: 3 Pages: 1155-1160 (2007)

Dynamics of a two-state quantum dot laser with saturable absorber
Viktorov, EA; Cataluna, MA; O'Faolain, L; Krauss, TF; Sibbett, W; Rafailov, EU; Mandel, P
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 12 Article Number: 121113 (2007)

Temperature dependence of pulse duration in a mode-locked quantum-dot laser
Cataluna, MA; Viktorov, EA; Mandel, P; Sibbett, W; Livshits, DA; Weimert, J; Kovsh, AR; Rafailov, EU
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 10 Article Number: 101102 (2007)

Phase effects in broad-stripe curved-grating distributed feedback heterolasers
Dudelev, VV; Sokolovskii, GS; Losev, SN; Deryagin, AG; Kuchinskii, VI; Nikishin, SA; Holtz, M; Rafailov, EU; Sibbett, W
TECHNICAL PHYSICS LETTERS
Volume: 33 Issue: 4 Pages: 292-294 (2007)

Two-photon ablation with 1278 nm laser radiation
Fischer, P; McWilliam, A; Paterson, L; Brown, CTA; Sibbett, W; Dholakia, K; MacDonald, MP
JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS
Volume: 9 Issue: 6 Pages: S19-S23 (2007)

Electroabsorption and electrorefraction in an InAs quantum-dot waveguide modulator
Malins, DB; Gomez-Iglesias, A; Rafailov, EU; Sibbett, W; Miller, A
IEEE PHOTONICS TECHNOLOGY LETTERS
Volume: 19 Issue: 13-16 Pages: 1118-1120 (2007)

High power all-quantum-dot-based external cavity modelocked laser
McRobbie, AD; Cataluna, MA; Zolotovskaya, SA; Livshits, DA; Sibbett, W; Rafailov, EU
ELECTRONICS LETTERS
Volume: 43 Issue: 15 Pages: 812-813 (2007)

Mode-locked quantum-dot lasers
Rafailov, EU; Cataluna, MA; Sibbett, W
NATURE PHOTONICS
Volume: 1 Issue: 7 Pages: 395-401 (2007)

Passive optical separation within a 'nondiffracting' light beam
Paterson, L; Papagiakoumou, E; Milne, G; Garces-Chavez, V; Briscoe, T; Sibbett, W; Dholakia, K; Riches, AC
JOURNAL OF BIOMEDICAL OPTICS
Volume: 12 Issue: 5 Article Number: 054017 (2007)

Self-sustained pulsation in the oxide-confined vertical-cavity surface-emitting lasers based on submonolayer InGaAs quantum dots
Kuzmenkov, AG; Ustinov, VM; Sokolovskii, GS; Maleev, NA; Blokhin, SA; Deryagin, AG; Chumak, SV; Shulenkov, AS; Mikhrin, SS; *et al.*
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 12 Article Number: 121106 (2007)

Thermographic assessment of tumor growth in mouse xenografts
Song, C; Appleyard, V; Murray, K; Frank, T; Sibbett, W; Cuschieri, A; Thompson, A
INTERNATIONAL JOURNAL OF CANCER
Volume: 121 Issue: 5 Pages: 1055-1058 (2007)

Low-loss quantum-dot-based saturable absorber for efficient femtosecond pulse generation
Lagatsky, AA; Bain, FM; Brown, CTA; Sibbett, W; Livshits, DA; Erbert, G; Rafailov, EU
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 23 Article Number: 231111 (2007)

Skeldon, KD

University of Glasgow
2 records

An improved algorithm for locating a gas source using inverse methods
Thomson, LC; Hirst, B; Gibson, G; Gillespie, S; Jonathan, P; Skeldon, KD; Padgett, MJ
ATMOSPHERIC ENVIRONMENT
Volume: 41 Issue: 6 Pages: 1128-1134 (2007)

Portable optical spectroscopy for accurate analysis of ethane in exhaled breath
Patterson, CS; McMillan, LC; Longbottom, C; Gibson, GM; Padgett, MJ; Skeldon, KD
MEASUREMENT SCIENCE & TECHNOLOGY
Volume: 18 Issue: 5 Pages: 1459-1464 (2007)

Skillicorn, IO

University of Glasgow
20 records, all of which are collaborations: ZEUS Collaboration (listed on p.151)

Smirne, G

University of St Andrews
2 records

Collisional relaxation of Feshbach molecules and three-body recombination in Rb-87 Bose-Einstein condensates
Smirne, G; Godun, RM; Cassettari, D; Boyer, V; Foot, CJ; Volz, T; Syassen, N; Durr, S; Rempe, G; Lee, MD; Goral, K; Kohler, T
PHYSICAL REVIEW A
Volume: 75 Issue: 2 Article Number: 020702 (2007)

A method of state-selective transfer of atoms between microtraps based on the Franck-Condon principle
Deb, AB; Smirne, G; Godun, RM; Foot, CJ
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS
Volume: 40 Issue: 21 Pages: 4131-4142 (2007)

Current Research

After graduating in Physics in 2000 from the University of Pisa, Italy, I won a one year scholarship to work on cold Rubidium molecules at the Italian national research council (CNR). In 2001, I moved to Oxford for my doctoral studies on Bose-Einstein Condensation, obtaining a DPhil in Physics from the University of Oxford in 2005. I worked in Oxford as a postdoctoral researcher for 3 years on the manipulation of Bose Einstein Condensates using Spatial Light Modulators, before joining the University of St Andrews in March 2008 as a SUPA Advanced Fellow, to work to the formation of a quantum degenerate Bose-Fermi mixture.

Smith, GM

University of St Andrews
4 records

Force detected electron spin resonance at 94 GHz
Cruickshank, PAS; Smith, GM
REVIEW OF SCIENTIFIC INSTRUMENTS
Volume: 654 Issue: 1 Pages: L13-L16 (2007)

Sub-nanosecond coherent pulse generation at millimetre-wave frequencies
Bolton, DR; Cruickshank, PS; Robertson, DA; Smith, GM
ELECTRONICS LETTERS
Volume: 654 Issue: 2 Pages: 697-701 (2007)

Design of high-performance millimeter wave and sub-millimeter wave quasi-optical isolators and circulators
Hunter, RI; Robertson, DA; Goy, P; Smith, GM
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES
Volume: 375 Issue: 4 Pages: 1146-1156 (2007)

Magnetic and optical properties of single crystals of transition metal doped ZnO
Kane, MH; Fenwick, WE; Strassburg, M; Nemeth, B; Varatharajan, R; Song, Q; Keeble, DJ; El-Mkami, H; Smith, GM; Zhang, ZJ; *et al.*
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS
Volume: 658 Issue: 1 Pages: L29-L32 (2007)

Smith, JF

University of the West of Scotland
6 records

Smooth terminating bands in Te-112: Particle-hole induced collectivity
Paul, ES; Starosta, K; Evans, AO; Boston, AJ; Chantler, HJ; Chiara, CJ; Devlin, M; Fletcher, AM; Fossan, DB; LaFosse, DR; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 1 Article Number: 014308 (2007)

Measurement of the sign of the spectroscopic quadrupole moment for the 2(1)(+) state in Se-70: No evidence for oblate shape
Hurst, AM; Butler, PA; Jenkins, DG; Delahaye, P; Wenander, F; Ames, F; Barton, CJ; Behrens, T; Burger, A; Cederkall, J; Clement, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 7 Article Number: 072501 (2007)

Spectroscopy of neutron-rich P-37
Hodsdon, A; Chapman, R; Liang, X; Haas, F; Ollier, J; Caurier, E; Nowacki, F; Salsac, MD; Azaiez, F; Beghini, S; Behera, B; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 3 Article Number: 034313 (2007)

One-particle excitations outside the Ti-54 semi-magic core: The V-55 and Ti-55 yrast structures
Zhu, S; Janssens, RVF; Fornal, B; Freeman, SJ; Honma, M; Broda, R; Carpenter, MP; Deacon, AN; Kay, BP; Kondev, FG; Krolas, W; *et al.*
PHYSICS LETTERS B
Volume: 650 Issue: 2-3 Pages: 135-140 (2007)

Gamma-ray spectroscopy of neutron-deficient Te-110. I. Low-spin and intermediate-spin structures
Paul, ES; Boston, AJ; Chiara, CJ; Devlin, M; Fossan, DB; Freeman, SJ; LaFosse, DR; Lane, GJ; Leddy, MJ; Lee, IY; Macchiavelli, AO; *et al.*
PHYSICAL REVIEW C
Volume: 76 Issue: 3 Article Number: 034322 (2007)

Spectroscopy of neutron-rich Fe isotopes populated in the Ni-64+U-238 reaction
Lunardi, S; Lenzi, SM; Della Vedova, F; Farnea, E; Gadea, A; Marginean, N; Bazzacco, D; Beghini, S; Bizzeti, PG; Bizzeti-Sona, AM; *et al.*
PHYSICAL REVIEW C
Volume: 76 Issue: 3 Article Number: 034303 (2007)

Sneddon, P

University of Glasgow
1 record

Titania-doped tantala/silica coatings for gravitational-wave detection
Harry, GM; Abernathy, MR; Becerra-Toledo, AE; Armandula, H; Black, E; Dooley, K; Eichenfield, M; Nwabugwu, C; Villar, A; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 2 Pages: 405-415 (2007)

Current Research

My work as the first University Teacher appointed to the Department of Physics and Astronomy at the University of Glasgow focuses on the development and improvement of new teaching techniques for Physics and Astronomy. Whilst the underlying science does not change, it is vital that the methods used to teach that science are kept up to date. Otherwise we risk loosing the interest of students. My particular focus has been on the complete renovation of our first year undergraduate teaching laboratory and the implementation of Peer-to-Peer tutorials, where honours students teach the first and second years.

Snowdon, JF

Heriot-Watt University
2 records

Characterisation of a Reconfigurable Free-Space Optical Channel for Embedded Computer Applications with Experimental Validation using Rapid Prototyping Technology
Gil-Otero, R; Lim, T; Snowdon, JF
EURASIP JOURNAL ON EMBEDDED SYSTEMS
Issue: 1 Article Number: 067603 Pages: 10 (2007)

Design and Construction of the High Speed Optoelectronic Memory System (HOLMS) Demonstrator
Barbieri, R; Benabes, P; Bierhoff, T; Caswell, JJ; Gauthier, A; Jahns, J; Jarczynski, M; Lukowicz, P; Oksman, J; Russell, GA; *et al.*
APPLIED OPTICS
Volume: 47 Issue: 19 Pages: 3500-3512 (2007)

Soler, FJP

University of Glasgow
5 records including 4 collaborations: HARP Collaboration (listed on p.147)

Search for the exotic Theta(+) resonance in the NOMAD experiment
Samoylov, O; Naumov, D; Cavasinni, V; Astier, P; Autiero, D; Baldisseri, A; Baldo-Ceolin, M; Banner, M; Bassompierre, G; *et al.*
NOMAD Collaboration
EUROPEAN PHYSICAL JOURNAL C
Volume: 49 Issue: 2 Pages: 499-510 (2007)

Spohr, K

University of the West of Scotland
3 records

A detector for filtering gamma-ray spectra from weak fusion-evaporation reactions out of strong background and for Doppler correction: The recoil filter detector, RFD
Meczynski, W; Bednarczyk, P; Grebosz, J; Heese, J; Janicki, M; Maier, KH; Merdinger, JC; Spohr, K; Zieblinski, M; Styczen, J
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 580 Issue: 3 Pages: 1310-1326 (2007)

Single particle structure of exotic nuclei with transfer reactions
Fernandez-Dominguez, B; Lemmon, RC; Timis, C; Labiche, M; Catford, WN; Chartier, M; Ashwood, NI; Amzal, N; Baldwin, TD; Burns, M; *et al.*
PROGRESS IN PARTICLE AND NUCLEAR PHYSICS VOL 59, NO 1 PROGRESS IN PARTICLE AND NUCLEAR PHYSICS
Volume: 59 Issue: 1 Pages: 389-391 (2007)

Spectroscopy of neutron-rich P-37
Hodsdon, A; Chapman, R; Liang, X; Haas, F; Ollier, J; Caurier, E; Nowacki, F; Salsac, MD; Azaiez, F; Beghini, S; Behera, B; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 3 Article Number: 034313 (2007)

St Denis, R

University of Glasgow
14 records, all of which are collaborations: CDF Collaboration (listed on p.142)

Stockinger, D

University of Glasgow
1 record

The muon magnetic moment and supersymmetry
Stockinger, D
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS
Volume: 34 Issue: 2 Pages: R45-R91 (2007)

Strain, K

University of Glasgow
13 records including 6 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Demonstration and comparison of tuned and detuned signal recycling in a large-scale gravitational wave detector
Hild, S; Grote, H; Hewtison, M; Luck, H; Smith, JR; Strain, KA; Willke, B; Danzmann, K
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 6 Pages: 1513-1523 (2007)

Novel sensing and control schemes for a three-mirror coupled cavity
Huttner, SH; Barr, B; Plissi, MV; Taylor, JR; Sorazu, B; Strain, KA
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 15 Pages: 3825-3836 (2007)

Physical instrumental vetoes for gravitational-wave burst triggers
Ajith, P; Hewitson, M; Smith, JR; Grote, H; Hild, S; Strain, KA
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 042004 (2007)

Optical modulation techniques for length sensing and control of optical cavities
Barr, BW; Huttner, SH; Taylor, JR; Sorazu, B; Plissi, MV; Strain, KA
APPLIED OPTICS
Volume: 46 Issue: 31 Pages: 7739-7745 (2007)

Photon-pressure-induced test mass deformation in gravitational-wave detectors
Hild, S; Brinkmann, M; Danzmann, K; Grote, H; Hewitson, M; Hough, J; Luck, H; Martin, I; Mossavi, K; Rainer, N; Reid, S; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 22 Pages: 5681-5688 (2007)

Charge measurement and mitigation for the main test masses of the GEO 600 gravitational wave observatory
Hewitson, M; Danzmann, K; Grote, H; Hild, S; Hough, J; Lueck, H; Rowan, S; Smith, JR; Strain, KA; Willke, B
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 24 Pages: 6379-6391 (2007)

The GEO 600 core optics
Winkler, W; Danzmann, K; Grote, H; Hewitson, M; Hild, S; Hough, J; Luck, H; Malec, M; Freise, A; Mossavi, K; Rowan, S; Rudiger, A; *et al.*
OPTICS COMMUNICATIONS
Volume: 280 Issue: 2 Pages: 492-499 (2007)

Current Research

My research interests include development of techniques in advanced interferometry for application to the detection of gravitational radiation from astrophysical sources. In particular, I have been involved in the design, testing and optimisation of signal recycling systems for laser interferometers. These allow the interferometer response functions to be optimised for the detection of the most likely signals. Signal recycling techniques form a key part of the design of the GEO 600 interferometer and are expected to be applied in Advanced LIGO detectors. I am PI of the UK "Advanced LIGO" project.

Summers, H

University of Strathclyde
1 record

Beam emission diagnostic for estimating neutral beam attenuation
Ikeda, K; Osakabe, M; Whiteford, A; Takeiri, Y; Kaneko, O; Kato, T; Murakami, I; Nagaoka, K; Oka, Y; Summers, H; Tsumori, K
LHD experiment group
FUSION SCIENCE AND TECHNOLOGY
Volume: 51 Issue: 2T Pages: 283-285 (2007)

Sun, H

University of Strathclyde
1 record

High energy terahertz pulse emission from GaAs illuminated by a femtosecond laser
Sun, JH; Gallacher, JG; Limos, N; Issac, R; Dias, JM; Huang, ZX; Jaroszynski, DA;
Proc. SPIE
Volume: 6840 Issue: 1 Pages: 68401C-1-68401C-9

Taghizadeh, MR

Heriot-Watt University
5 records

Three-dimensional nanoscale subsurface optical imaging of silicon circuits
Ramsay, E; Serrels, KA; Thomson, MJ; Waddie, AJ; Taghizadeh, MR; Warburton, RJ; Reid, DT
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 13 Article Number: 131101 (2007)

Analysis of multimask fabrication errors for diffractive optical elements
Caley, AJ; Braun, M; Waddie, AJ; Taghizadeh, MR
APPLIED OPTICS
Volume: 46 Issue: 12 Pages: 2180-2188 (2007)

Optical fiber array for the delivery of high peak-power laser pulses for fluid flow measurements
Parry, JP; Shephard, JD; Thomson, MJ; Taghizadeh, MR; Jones, JDC; Hand, DP
APPLIED OPTICS
Volume: 46 Issue: 17 Pages: 3432-3438 (2007)

Diffractive optical elements for high gain lasers with arbitrary output beam profiles
Caley, AJ; Thomson, MJ; Liu, JS; Waddie, AJ; Taghizadeh, MR
OPTICS EXPRESS
Volume: 15 Issue: 17 Pages: 10699-10704 (2007)

Three-dimensional nanometric sub-surface imaging of a silicon flip-chip using the two-photon optical beam induced current method
Ramsay, E; Serrels, KA; Thomson, MJ; Waddle, AJ; Warburton, RJ; Taghizadeh, MR; Reid, DT
MICROELECTRONICS RELIABILITY
Volume: 47 Issue: 9-11(Sp. Iss. SI) Pages: 1534-1538 (2007)

Taylor, A

The University of Edinburgh
3 records

Cosmological constraints from COMBO-17 using 3D weak lensing
Kitching, TD; Heavens, AF; Taylor, AN; Brown, ML; Wolf, C; Meisenheimer, K; Bacon, DJ; Gray, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 376 Pages: 771-778 (2007)

Dark Matter maps reveal cosmic scaffolding
Massey, R; Rhodes, J; Ellis, R; Scoville, N; Leauthaud, A; Finoguenov, A; Capak, P; Bacon, D; Aussel, H; Kneib, JP; Koekemoer, A; *et al.*
NATURE
Volume: 445 Pages: 286 (2007)

Probing dark energy with the shear-ratio geometric test
Taylor, AN Kitching, TD; Bacon, DJ; Heavens, AF;
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 374 Issue: 4-1 Pages: 1377-1403 (2007)

Thompson, AS

University of Glasgow
37 records, all of which are collaborations: ALEPH Collaboration (listed on p.134): CDF Collaboration (listed on p.142)

Titov, M

Heriot-Watt University
3 records

Excitation gap of a graphene channel with superconducting boundaries
Titov, M; Ossipov, A; Beenakker, CWJ
PHYSICAL REVIEW B
Volume: 75 Article Number: 045417 (2007)

Impurity-assisted tunneling in graphene
Titov, M
EUROPHYS. LETTERS
Article Number: 017004 (2007)

Re-entrance effect in a graphene n-p-n junction coupled to a superconductor
Ossipov, A; Titov, M; Beenakker, CWJ
PHYSICAL REVIEW B
Volume: 75 Article Number: 241401 (2007)

Torokoff, K

The University of Edinburgh
Zero records for the year 2007

Torrie, C

University of Glasgow
6 records including 2 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Upper limits on gravitational wave emission from 78 radio pulsars
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 042001 (2007)

Searches for periodic gravitational waves from unknown isolated sources and Scorpius X-1: Results from the second LIGO science run
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 8 Article Number: 082001 (2007)

Upper limit map of a background of gravitational waves
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 8 Article Number: 082003 (2007)

Search for gravitational-wave bursts in LIGO data from the fourth science run
Abbott, B; Abbott, R; Adhikari, R; Agresti, J; Ajith, P; Allen, B; Amin, R; Anderson, SB; Anderson, WG; Arain, M; Araya, M; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 22 Pages: 5343-5369 (2007)

Townsend, D

Heriot-Watt University
1 record

Ab initio molecular dynamics and time-resolved photoelectron spectroscopy of electronically excited uracil and thymine
Hudock, HR; Levine, BG; Thompson, AL; Satzger, H; Townsend, D; Gador, N; Ullrich, S; Stolow, A; Martinez, TJ
JOURNAL OF PHYSICAL CHEMISTRY A
Volume: 111 Issue: 34 Pages: 8500-8508 (2007)

Trager-Cowan, C

University of Strathclyde
3 records

Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films
Trager-Cowan, C; Sweeney, F; Trimby, PW; Day, AP; Gholinia, A; Schmidt, NH; Parbrook, PJ; Wilkinson, AJ; Watson, IM
PHYSICAL REVIEW B
Volume: 75 Issue: 8 Article Number: 085301 (2007)

Many-beam dynamical simulation of electron backscatter diffraction patterns
Winkelmann, A; Trager-Cowan, C; Sweeney, F; Day, AP; Parbrook, P
ULTRAMICROSCOPY
Volume: 107 Issue: 4-5 Pages: 414-421 (2007)

Light makes an impact on the lives and healthcare of Scots
Trager-Cowan, C
MRS BULLETIN
Volume: 32 Issue: 8 Pages: 673-674 (2007)

Current Research

Carol is presently fascinated with the luminescence from and the crystallography of nitride semiconductors, the material from which commercial UV/blue semiconductor LEDs and laser diodes are now being produced. In collaboration with Angus Wilkinson, Department at Oxford University, Austin Day, Aunt Daisy Scientific Ltd, Gordon England, KE Developments and Aimo Winkelmann, Max-Planck-Institute for Microstructure Physics, she is working on new developments and novel applications of the electron beam techniques of electron backscatter diffraction, electron channelling contrast imaging and cathodoluminescence imaging. Nitride semiconductors from laboratories in the UK, Europe, USA and Japan are presently under study.

Turnbull, GA

University of St Andrews
6 records

Fluidic fibre dye lasers
Vasdekis, AE; Town, GE; Turnbull, GA; Samuel, IDW
OPTICS EXPRESS
Volume: 15 Issue: 7 Pages: 3962-3967 (2007)

Organic semiconductor lasers
Samuel, IDW; Turnbull, GA
CHEMICAL REVIEWS
Volume: 107 Issue: 4 Pages: 1272-1295 (2007)

Amplification of optical pulse sequences at a high repetition rate in a polymer slab waveguide
Amarasinghe, D; Ruseckas, A; Vasdekis, AE; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 1 Article Number: 011105 (2007)

Silicon based organic semiconductor laser
Vasdekis, AE; Moore, SA; Ruseckas, A; Krauss, TF; Samuel, IDW; Turnbull, GA
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 5 Article Number: 051124 (2007)

Amplified spontaneous emission and lasing properties of bisfluorene-cored dendrimers
Ribierre, JC; Tsiminis, G; Richardson, S; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 8 Article Number: 081108 (2007)

Improved operational lifetime of semiconducting polymer lasers by encapsulation
Richardson, S; Gaudin, OPM; Turnbull, GA; Samuel, IDW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 26 Article Number: 261104 (2007)

Current Research

Graham Turnbull's research interests are focused on optical applications of soft materials, notably organic semiconductor photonics and optofluidics. His current research projects include diode-pumped polymer lasers and their applications, nonlinear optics in organic semiconductors, soft lithography, and polymer and liquid micro-optics.

Walker, A

The University of Edinburgh
8 records, all of which are collaborations: NA48 Collaboration (listed on p.149)

Current Research

I run a small group, currently focussed on the uv-laser-writing of optical waveguides and their applications to electronics, providing optical interconnects within printed circuit boards and backplanes. Our current project is funded by the Innovative Electronics Manufacturing Research Centre run by Loughborough University.

Warburton, RJ

Heriot-Watt University
11 records

Contrast in transmission spectroscopy of a single quantum dot
Gerardot, BD; Seidl, S; Dalgarno, PA; Warburton, RJ; Kroner, M; Karrai, K; Badolato, A; Petroff, PM
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 22 Article Number: 221106 (2007)

Exciton-photon coupling in a ZnSe-based microcavity fabricated using epitaxial liftoff
Curran, A; Morrod, JK; Prior, KA; Kar, AK; Warburton, RJ
SEMICONDUCTOR SCIENCE AND TECHNOLOGY
Volume: 22 Issue: 11 Pages: 1189-1192 (2007)

Fine structure of negatively and positively charged excitons in semiconductor quantum dots: electron-hole asymmetry
Ediger, M; Bester, G; Gerardot, BD; Badolato, A; Petroff, PM; Karrai, K; Zunger, A; Warburton, RJ
PHYSICS REVIEW LETTERS
Volume: 98 Article Number: 036808 (2007)

Manipulating exciton fine structure in quantum dots with a lateral electric field
Gerardot, BD; Seidl, S; Dalgarno, PA; Warburton, RJ; Granados, D; Garcia, JM; Kowalik, K; Krebs, O; Karrai, K; Badolato, A; Petroff, PM
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 4 Article Number: 041101 (2007)

Modulation spectroscopy on a single self assembled quantum dot
Seidl, S; Hogele, A; Kroner, M; Karrai, K; Warburton, RJ; Garcia, MJ; Petroff, PM
PHYSICA STATUS SOLIDI (A)
Volume: 204 Pages: 381-389 (2007)

Optically Probing the Fine Structure of a Single Mn Atom in an InAs Quantum Dot
Kudelski, A; Lemaître, A; Miard, A; Voisin, P; Graham, TCM; Warburton, RJ; Krebs, O
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 24 Article Number: 247209 (2007)

Peculiar many-body effects revealed in the spectroscopy of highly charged quantum dots
Ediger, M; Bester, G; Badolato, A; Petroff, PM; Karrai, K; Zunger, A; Warburton, RJ
NATURE PHYSICS
Volume: 3 Issue: 11 Pages: 774-779 (2007)

Resonant interaction between a quantum dot and a narrowband laser: Spectroscopy and optical pumping of a single spin
Kroner, M; Seidl, S; Gerardot, BD; Biedermann, B; Badolato, A; Petroff, PM; Karrai, K; Warburton, RJ
INTERNATIONAL JOURNAL OF MODERN PHYSICS B
Volume: 12 Issue: 8 Pages: 1307-1315 (2007)

Submicrometer photoresponse mapping of nanowire superconducting single-photon detectors
Hadfield, RH; Dalgarno, PA; O'Connor, JA; Ramsay, E; Warburton, RJ; Gansen, EJ; Baek, B; Stevens, MJ; Mirin, RP; Nam, SW
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 24 Article Number: 241108 (2007)

Three-dimensional nanometric sub-surface imaging of a silicon flip-chip using the two-photon optical beam induced current method
Ramsay, E; Serrels, KA; Thomson, MJ; Waddie, AJ; Taghizadeh, MR; Warburton, RJ; Reid, DT
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 13 Article Number: 131101 (2007)

Three-dimensional nanoscale subsurface optical imaging of silicon circuits
Ramsay, E; Serrels, KA; Thomson, MJ; Waddie, AJ; Taghizadeh, MR; Warburton, RJ; Reid, DT
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 13 Article Number: 131101 (2007)

Ward, H

University of Glasgow
7 records including 6 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

The GEO 600 core optics
Winkler, W; Danzmann, K; Grote, H; Hewitson, M; Hild, S; Hough, J; Luck, H; Malec, M; Freise, A; Mossavi, K; Rowan, S; Rudiger, A; *et al.*
OPTICS COMMUNICATIONS
Volume: 280 Issue: 2 Pages: 492-499 (2007)

Watson, IM

University of Strathclyde
10 records

Dry etching of N-face GaN using two high-density plasma etch techniques
Rizzi, F; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
PHYSICA STATUS SOLIDI (C)
Volume: 4 Pages: 200-203 (2007)

Photonic crystals comprising selectively grown flat-topped and sharp-tipped GaN pyramids
Coquillat, D;Le Vassor d'Yerville, M; Boubang Tombet, SA; Liu, C; Bejtka, K; Watson, IM; Edwards, PR; Martin, RW; Chong HMH; De La Rue, R M
PHYSICA STATUS SOLIDI (C)
Volume: 4 Pages: 95-99 (2007)

Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films
Trager-Cowan, C; Sweeney, F; Trimby, PW; Day, AP; Gholinia, A; Schmidt, NH; Parbrook, PJ; Wilkinson, AJ; Watson, IM
PHYSICAL REVIEW B
Volume: 75 Issue: 8 Article Number: 085301 (2007)

(In,Ga)N/GaN microcavities with double dielectric mirrors fabricated by selective removal of an (Al,In)N sacrificial layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Kang, XN; Zhang, GY; Gu, E; Dawson, MD; Watson, IM; Martin, RW
APPLIED PHYSICS LETTERS
Volume: 90 Issue: 11 Article Number: 111112 (2007)

Selective wet etching of lattice-matched AlInN-GaN heterostructures
Rizzi, F; Bejtka, K; Edwards, PR; Martin, RW; Watson, IM
JOURNAL OF CRYSTAL GROWTH
Volume: 300 Issue: 1 Pages: 254-258 (2007)

Thinning of N-face GaN (000(1)over bar) samples by inductively coupled plasma etching and chemomechanical polishing
Rizzi, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW; Kang, XN; Zhang, GY
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A
Volume: 25 Issue: 2 Pages: 252-260 (2007)

Double-dielectric-mirror InGaN/GaN microcavities formed using selective removal of an AlInN layer
Rizzi, F; Edwards, PR; Bejtka, K; Semond, F; Gu, E; Dawson, MD; Watson, IM; Martin, RW
SUPERLATTICES AND MICROSTRUCTURES
Volume: 41 Issue: 5-6 Pages: 414-418 (2007)

Quantitative simulation of in situ reflectance data from metal organic vapour phase epitaxy of GaN on sapphire
Liu, CW; Watson, IM
SEMICONDUCTOR SCIENCE AND TECHNOLOGY
Volume: 22 Issue: 6 Pages: 629-635 (2007)

Efficient dipole-dipole coupling of Mott-Wannier and Frenkel excitons in (Ga,In)N quantum well/polyfluorene semiconductor heterostructures
Itskos, G; Heliotis, G; Lagoudakis, PG; Lupton, JM; Barradas, NP; Alves, E; Pereira, S; Watson, IM; Dawson, MD; Feldmann, J; Murray, R; Bradley, DDC
PHYSICAL REVIEW B
Volume: 76 Issue: 3 Article Number: 035344 (2007)

Temperature dependence of exciton transfer in hybrid quantum well/nanocrystal heterostructures
Rohrmoser, S; Baldauf, J; Harley, RT; Lagoudakis, PG; Sapra, S; Eychmuller, A; Watson, IM
APPLIED PHYSICS LETTERS
Volume: 91 Issue: 9 Article Number: 092126 (2007)

Current Research

Dr Watson's research is centred on metal organic chemical vapour deposition of semiconductors from the GaN family, with a particular recent focus on the ternary alloy AlInN. This crystal growth technique can produce complex multilayer structures used in commercially important devices, including light-emitting diodes (LEDs). The emphasis of research projects is typically on producing more novel structures for detailed physical studies, to address issues including non-radiative transfer of excitations from InGaN quantum wells into secondary luminescent media. Dr Watson's interests also extend to material processing and characterisation, encompassing, for example, photonic crystal LEDs.

Watts, D

The University of Edinburgh
9 records including 6 collaborations: CLAS Collaboration (listed on p.146)

Dependence of the C-12 ((gamma)over-right-arrow, pd) reaction on photon linear polarisation
Watts, DP; Annand, JRM; Beck, R; Branford, D; Glazier, DI; Grabmayr, P; Livingston, K; MacGregor, IJD; McGeorge, JC; Owens, RO; Rosner, G
PHYSICS LETTERS B
Volume: 647 Issue: 2-3 Pages: 88-92 (2007)

Experimental study of the halo nucleus He-6 using the Li-6(gamma,pi(+))He-6 reaction
Harrington, NP; Branford, D; Fohl, K; Roche, E; Annand, JRM; Beck, R; Grabmayr, P; Hehl, T; Hornidge, D; Livingston, K; McGreorge, JC; *et al.*
PHYSICAL REVIEW C
Volume: 75 Issue: 4 Article Number: 044311 (2007)

Double pion photoproduction off Ca-40
Bloch, F; Ahrens, J; Annand, JRM; Beck, R; Fog, LS; Hornidge, D; Janssen, S; Kotulla, M; Krusche, B; McGeorge, JC; MacGregor, IJD; *et al.*
EUROPEAN PHYSICAL JOURNAL A
Volume: 32 Issue: 2 Pages: 219-228 (2007)

Current Research

My research uses electromagnetic probes to study the structure of the nucleon and the short-range structure of the nucleus. The majority of my recent efforts have been at the Crystal Ball at MAMI where in recent years I led the Particle Identification sub-detector project and the development of the new Edinburgh 4pi nucleon recoil polarimeter. I am the spokesperson for experiments that will accurately measure the magnetic moments of strongly decaying particles, determine of the nature of neutron skins in heavy stable nuclei and provide data to constrain the determination of the excitation spectrum of the nucleon fully for the first time.

Wilson, JIB

Heriot-Watt University
3 records

Characterisation of plasma-treated textiles
Neville, A; Mather, RR; Wilson, JIB
In Shishoo, R (Ed)
PLASMA TECHNOLOGIES FOR TEXTILES
Woodhead Publishing Limited, Cambridge (2007)

Spatially resolved atomic excitation temperatures in CH4/H-2 and C3H8/H-2 RF discharges by optical emission spectroscopy
Chingsungnoen, A; Wilson, JIB; Amornkitbamrung, V; Thomas, C; Burinprakhon, T
PLASMA SOURCES SCIENCE & TECHNOLOGY
Volume: 16 Issue: 3 Pages: 434-440 (2007)

The resolution of optical traps created by light induced dielectrophoresis (LIDEP)
Neale, SL; Mazilu, M; Wilson, JIB; Dholakia, K; Krauss, TF
OPTICS EXPRESS
Volume: 15 Issue: 20 Pages: 12619-12626 (2007)

Woan, G

University of Glasgow
14 records including 7 collaborations: LIGO Scientific Collaboration (listed on p.148): LIGO Scientific Collaboration; ALLEGRO Collaboration (listed on p.148)

Gravitational astrophysics
Hendry, M; Woan, G
ASTRONOMY & GEOPHYSICS
Volume: 48 Issue: 1 Pages: 10-17 (2007)

Binary system delays and timing noise in searches for gravitational waves from known pulsars
Pitkin, M; Woan, G
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 042006 (2007)

Evidence-based search method for gravitational waves from neutron star ring-downs
Clark, J; Heng, IS; Pitkin, M; Woan, G
PHYSICAL REVIEW D
Volume: 76 Issue: 4 Article Number: 043003 (2007)

A fast search strategy for gravitational waves from low-mass x-ray binaries
Messenger, C; Woan, G
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S469-S480 (2007)

Inference on inspiral signals using LISA MLDC data
Rover, C; Stroeer, A; Bloomer, E; Christensen, N; Clark, J; Hendry, M; Messenger, C; Meyer, R; Pitkin, M; Toher, J; Umstaetter, R; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S521-S527 (2007)

Inference on white dwarf binary systems using the first round Mock LISA Data Challenges data sets
Stroeer, A; Veitch, J; Roever, C; Bloomer, E; Clark, J; Christensen, N; Hendry, M; Messenger, C; Meyer, R; Pitkin, M; Toher, J; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S541-S549 (2007)

Report on the first round of the mock LISA data challenges
Arnaud, KA; Auger, G; Babak, S; Baker, JG; Benacquista, MJ; Bloomer, E; Brown, DA; Camp, JB; Cannizzo, JK; Christensen, N; *et al.*
CLASSICAL AND QUANTUM GRAVITY
Volume: 24 Issue: 19(Sp. Iss. SI) Pages: S529-S539 (2007)

Current Research

My research lies in practical radio and gravitational astronomy. Within the LIGO Scientific Collaboration (LSC) I develop methods for detecting astrophysical signals in data from current and future gravitational wave telescopes (LIGO, GEO600 Virgo, LISA) concentrating on Bayesian techniques, signals from known radio pulsars, and the LISA confusion problem. Additionally, I work within the Square Kilometre Array Design Studies team modelling the polarisation response of the SKA and determining the implications of its fidelity for achievable astronomy, including Faraday rotation imaging and pulsar timing. My interests naturally extend to LOFAR, its impact on the above, and on heliospheric scintillation imaging.

Wood, AJ

The University of Edinburgh
2 records

Evolving the selfish herd: emergence of distinct aggregating strategies in an individual-based model
Wood, AJ; Ackland, GJ
PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES
Volume: 274 Issue: 1618 Pages: 1637-1642 (2007)

A fitness based analysis of Daisyworld
Wood, AJ; Coe, JB
JOURNAL OF THEORETICAL BIOLOGY
Volume: 249 Issue: 2 Pages: 190-197 (2007)

Wood, K

University of St Andrews
4 records

Interpreting spectral energy distributions from young stellar objects. II. Fitting observed seds using a large grid of precomputed models
Robitaille, TP; Whitney, BA; Indebetouw, R; Wood, K
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES
Volume: 169 Issue: 2 Pages: 328-352 (2007)

Evolution of brown dwarf disks: A Spitzer survey in Upper Scorpius
Scholz, A; Jayawardhana, R; Wood, K; Meeus, G; Stelzer, B; Walker, C; O'Sullivan, M
ASTROPHYSICAL JOURNAL
Volume: 660 Issue: 2 Pages: 1517-1531 (2007)

The coronal structure of AB Doradus determined from contemporaneous Doppler imaging and X-ray spectroscopy
Hussain, GAJ; Jardine, M; Donati, JF; Brickhouse, NS; Dunstone, NJ; Wood, K; Dupree, AK; Cameron, AC; Favata, F
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 377 Issue: 4 Pages: 1488-1502 (2007)

Why are accreting T Tauri stars observed to be less luminous in X-rays than non-accretors
Gregory, SG; Wood, K; Jardine, M
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY
Volume: 379 Issue: 1 Pages: L35-L39 (2007)

Woodcraft, AL

The University of Edinburgh
2 records

Electrical and optical measurements on the first SCUBA-2 prototype 1280 pixel submillimeter superconducting bolometer array
Woodcraft, AL; Ade, PAR; Bintley, D; House, JS; Hunt, CL; Sudiwala, RV; Doriese, WB; Duncan, WD; Hilton, GC; Irwin, KD; Reintsema, CD; *et al.*
REVIEW OF SCIENTIFIC INSTRUMENTS
Volume: 78 Issue: 2 Article Number: 024502 (2007)

Millikelvin thermal conductance measurements of compact rigid thermal isolation joints using of copper and beryllium-copper sapphire-sapphire contacts, and demountable thermal contacts
Bintley, D; Woodcraft, AL; Gannaway, FC
CRYOGENICS
Volume: 47 Issue: 5-6 Pages: 333-342 (2007)

Woods, P

The University of Edinburgh
4 records

Level structure of Si-26 and its implications for the astrophysical reaction rate of Al-25(p,gamma)Si-26
Seweryniak, D; Woods, PJ; Carpenter, MP; Davinson, T; Janssens, RVF; Jenkins, DG; Lauritsen, T; Lister, CJ; Shergur, J; Sinha, S; Woehr, A
PHYSICAL REVIEW C
Volume: 75 Issue: 6 Article Number: 062801 (2007)

Single-neutron states in Sn-101
Seweryniak, D; Carpenter, MP; Gros, S; Hecht, AA; Hoteling, N; Janssens, RVF; Khoo, TL; Lauritsen, T; Lister, CJ; Lotay, G; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 2 Article Number: 022504 (2007)

Effect of a triaxial nuclear shape on proton tunneling: The decay and structure of Tm-145
Seweryniak, D; Blank, B; Carpenter, MP; Davids, CN; Davinson, T; Freeman, SJ; Hammond, N; Hoteling, N; Janssens, RVF; Khoo, TL; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 8 Article Number: 082502 (2007)

Observation of two-proton radioactivity of Mg-19 by tracking the decay products
Mukha, I; Summerer, K; Acosta, L; Alvarez, MAG; Casarejos, E; Chatillon, A; Cortina-Gil, D; Espino, J; Fomichev, A; Garcia-Ramos, JE; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 18 Article Number: 182501 (2007)

Wright, A

University of Strathclyde
3 records

Adaptive optics for enhanced signal in CARS microscopy
Wright, AJ; Poland, SP; Girkin, JM; Freudiger, CW; Evans, CL; Xie, XS;
OPTICS EXPRESS
Volume: 15 Article Number: 018209 (2007)

Optical ferris wheel for ultracold atoms
Franke-Arnold, S; Leach, J; Padgett, MJ; Lembessis, VE; Ellinas, D; Wright, AJ; Girkin, JM; Ohberg, P; Arnold, AS
OPTICS EXPRESS
Volume: 15 Issue: 14 Pages: 8619-8625 (2007)

Parametric resonance of optically trapped aerosols
Di Leonardo, R; Ruocco, G; Leach, J; Padgett, MJ; Wright, AJ; Girkin, JM; Burnham, DR; McGloin, D
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 1 Article Number: 010601 (2007)

Wynne, K

University of Strathclyde
4 records

Terahertz-pulse emission through laser excitation of surface plasmons in a metal grating
Welsh, GH; Hunt, NT; Wynne, K
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 2 Article Number: 026803 (2007)

The dynamics of water-protein interaction studied by ultrafast optical Kerr-effect spectroscopy
Hunt, NT; Kattner, L; Shanks, RP; Wynne, K
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Volume: 129 Issue: 11 Pages: 3168-3172 (2007)

200 ns pulse high-voltage supply for terahertz field emission
Welsh, GH; Turton, DA; Jones, DR; Jaroszynski, DA; Wynne, K
REVIEW OF SCIENTIFIC INSTRUMENTS
Volume: 78 Issue: 4 Article Number: 043103 (2007)

The ultrafast dynamics of hydrogen-bonded liquids: Molecular structure-dependent occurrence of normal arrhenius or fractional stokes-einstein-debye rotational diffusive relaxation
Hunt, NT; Turner, AR; Tanaka, H; Wynne, K
JOURNAL OF PHYSICAL CHEMISTRY B
Volume: 111 Issue: 32 Pages: 9634-9643 (2007)

Current Research

Klaas Wynne studied for his MSci (1987) and PhD (1990) at the University of Amsterdam under the guidance of Professor Joop van Voorst studying Raman photon echoes and other ultrafast phenomena. He became a postdoctoral fellow at the University of Pennsylvania with Professor Robin Hochstrasser in 1991 building ultrafast laser systems and using them to study condensed phase small molecule dynamics and various larger proteins from the ultraviolet to the infrared. He joined the Physics Department at Strathclyde in 1996 where he is currently a professor.

Yao, E

University of Glasgow
Zero records for the year 2007

Yelland, EA

University of St Andrews
3 records

de Haas-van Alphen effect investigations of the electronic structure of pure and aluminum-doped MgB2
Carrington, A; Yelland, EA; Fletcher, JD; Cooper, JR
PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS
Volume: 456 Issue: 1-2 Pages: 92-101 (2007)

Band-structure calculations of Fermi-surface pockets in ortho-II YBa2Cu3O6.5
Carrington, A; Yelland, EA
PHYSICAL REVIEW B
Volume: 76 Issue: 14 Article Number: 140508 (2007)

Magnetic excitations in an itinerant ferromagnet near quantum criticality
Yelland, EA; Hayden, SM
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 19 Article Number: 196405 (2007)

Zhao, HS

University of St Andrews
12 records

On the proof of dark matter, the law of gravity, and the mass of neutrinos
Angus, GW; Shan, HY; Zhao, HS; Famaey, B
ASTROPHYSICAL JOURNAL
Volume: 654 Issue: 1 Pages: L13-L16 (2007)

Tidal disruption of the first dark microhalos
Zhao, HS; Hooper, D; Angus, GW; Taylor, JE; Silk, J
ASTROPHYSICAL JOURNAL
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Cold dark matter microhalo survival in the Milky Way
Angus, GW; Zhao, HS
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Volume: 375 Issue: 4 Pages: 1146-1156 (2007)

Insight into the baryon-gravity relation in galaxies
Famaey, B; Gentile, G; Bruneton, JP; Zhao, HS
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Volume: 75 Issue: 6 Article Number: 063002 (2007)

The bulge radial velocity assay: Techniques and a rotation curve
Rich, RM; Reitzel, DB; Howard, CD; Zhao, HS
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Escaping from modified Newtonian dynamics
Famaey, B; Bruneton, JP; Zhao, HS
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Galaxy bulge formation: Interplay with dark matter halo and central supermassive black hole
Xu, BX; Wu, XB; Zhao, HS
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Loss of mass and stability of galaxies in modified newtonian dynamics
Wu, XF; Zhao, HS; Famaey, B; Gentile, G; Tiret, O; Combes, F; Angus, GW; Robin, AC
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Vertical dynamics of disc galaxies in modified Newtonian dynamics
Nipoti, C; Londrillo, P; Zhao, HS; Ciotti, L
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Tidal dwarf galaxies as a test of fundamental physics
Gentile, G; Famaey, B; Combes, F; Kroupa, P; Zhao, HS; Tiret, O
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Coincidences of dark energy with dark matter: Clues for a simple alternative?
Zhao, HS
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Velocity dispersion around ellipticals in MOND
Tiret, O; Combes, F; Angus, GW; Famaey, B; Zhao, HS
ASTRONOMY & ASTROPHYSICS
Volume: 476 Issue: 1 Pages: L1-L4 (2007)

Current Research

My previous researches are in the area of galaxy structure, including gravitational lensing and dynamics of the Milky Way, and its satellite galaxies and external galaxies with the aim of constraining the dark matter density distribution in galaxies. My current interests are in the interface area between Dark Matter, Dark Energy with Modified gravities. MOND and its variations TeVeS and Einstein-Aether theory are theories that interest me. My aim is to put these theories to test, especially raise the standard of comparison of MOND theories and Lambda Cold Dark Matter theory by extending the MOND predictions into gravitational lensing, cosmic expansion and CMB, and eventually galaxy formation. I continue with my research on testing the reality of the CDM cusp, improving prediction of signals of neutralino self-annihilation and gravitational lensing of CDM substructures.

ALEPH Collaboration

SUPA collaborators: O'Shea, V; Thompson, AS

Fermion pair production in e(+)e(-) collisions at 189-209 GeV and constraints on physics beyond the standard model
Schael, S; Barate, R; Bruneliere, R; De Bonis, I; Decamp, D; Goy, C; Jezequel, S; Lees, JP; Martin, F; Merle, E; Minard, MN; *et al.*
EUROPEAN PHYSICAL JOURNAL C
Volume: 49 Issue: 2 Pages: 411-437 (2007)

Search for Higgs bosons decaying to WW in e(+)e(-) stope collisions at LEP
Schael, S; Barate, R; Bruneliere, R; De Bonis, I; Decamp, D; Goy, C; Jezequel, S; Lees, JP; Martin, F; Merle, E; Minard, MN; *et al.*
EUROPEAN PHYSICAL JOURNAL C
Volume: 49 Issue: 2 Pages: 439-455 (2007)

Measurement of the cross section for open b-quark production in two-photon interactions at LEP
Schael, S; Barate, R; Bruneliere, R; Bonis, I; Decamp, D; Goy, C; Jezequel, S; Lees, JP; Martin, F; Merele, E; Minard, MN; *et al.*
JOURNAL OF HIGH ENERGY PHYSICS
Issue: 9 Article Number: 102 (2007)

ATLAS Collaboration

SUPA collaborators: Buttar, C; O'Shea, V; Bates, R; Eklund, L; Saxon, DH

The silicon microstrip sensors of the ATLAS semiconductor tracker
Ahmad, A; Albrechtskirchinger, Z; Allport, PP; Alonso, J; Andricek, L; Apsimon, RJ; Barr, AJ; Bates, RL; Beck, GA; Bell, PJ; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
Volume: 578 Issue: 1 Pages: 98-118 (2007)

The optical links of the ATLAS SemiConductor tracker
Wilson, JA; Abdesselam, A; Allport, PP; Apsimon, RJ; Band, C; Barr, AJ; Batchelor, L; Bates, R; Bell, P; Bernabeu, J; Bizzell, J; *et al.*
JOURNAL OF INSTRUMENTATION
Volume: 2 (2007)

BABAR Collaboration

SUPA collaborators: Clark, P; Muheim, F; Playfer, S

Improved measurements of the branching fractions for B-0 ->pi(+) pi(-) and B-0 -> K+ pi(-), and a search for B-0 -> K+ K-
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 1 Article Number: 012008 (2007)

Inclusive Lambda(+)(c) production in e(+)e(-) annihilations at root s=10.54 GeV and in Y(4S) decays
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 1 Article Number: 012003 (2007)

Observation of a charmed baryon decaying to D(0)p at a mass near 2.94 GeV/c(2)
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 1 Article Number: 012001 (2007)

Observation of CP violation in B ->eta/K-0 decays
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Branching fraction measurement of (B)over-bar(0)-> D(*)+pi(-) and B--> D-(*)0 pi(-) and isospin analysis of (B)over-bar -> D-(*)pi decays
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 3 Article Number: 031101 (2007)

Measurement of the CP asymmetry and branching fraction of B-0 ->rho K-0(0)
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 5 Article Number: 051803 (2007)

Observation of B ->eta ' K- and evidence for B+->eta ' p(+)*
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 5 Article Number: 051802 (2007)

Observation of decays B-0 -> D-s((*)+)pi(-) and B-0 -> Ds(*)-K+
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
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Volume: 98 Issue: 8 Article Number: 081801 (2007)

Search for lepton flavor violating decays tau(+/-)-> l(+/-)pi(0),l(+/-)eta,l(+/-)eta '
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW LETTERS
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Search for the reactions e(+)e(-) -> mu(+)tau(-) and e(+)e(-)-> e(+)tau(-)
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 3 Article Number: 031103 (2007)

*Vector-tensor and vector-vector decay amplitude analysis of B-0 ->phi K*0*
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Evidence for B-0 ->rho(0)rho(0) decays and implications for the Cabibbo-Kobayashi-Maskawa angle alpha
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Measurement of B decays to phi K gamma
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Volume: 75 Issue: 5 Article Number: 051102 (2007)

Measurement of the B-0 ->pi(-)l(+)nu form-factor shape and branching fraction, and determination of |V-ub| with a loose neutrino reconstruction technique
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Measurements of Lambda(+)(c) branching fractions of Cabibbo-suppressed decay modes involving Lambda and Sigma(0)
Aubert, B; Barate, R; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 5 Article Number: 052002 (2007)

Branching fraction measurements of B+->rho(+)gamma, B-0 ->rho(0)gamma, and B-0 ->omega gamma
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Volume: 98 Issue: 15 Article Number: 151802 (2007)

Evidence for the rare decay B+ -> D-s(+) pi(0)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
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Measurement of the pseudoscalar decay constant f(Ds) using charm-tagged events in e(+)e(-) collisions at root s=10.58.GeV
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 14 Article Number: 141801 (2007)

Study of inclusive B- and (B)over-bar(0) decays to flavor-tagged D, D-s, and Lambda(+)(c)
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 7 Article Number: 072002 (2007)

Performance of the LHCb RICH photodetectors in a charged particle beam
Adinolfi, M; Rinella, GA; Albrecht, E; Ameri, M; Arnaboldi, C; Bellunato, T; Bibby, J; Blake, T; Cuneo, S; Dickens, J; Easo, S; *et al.*
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT
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Evidence for D-0-(D)over-bar(0) mixing
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
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Volume: 98 Issue: 21 Article Number: 211802 (2007)

Evidence of a broad structure at an invariant mass of 4.32 GeV/c(2) in the reaction e(+)e(-)->pi(+)pi(-)psi(2S) measured at BABAR
Aubert, B; Barate, R; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 21 Article Number: 212001 (2007)

Measurement of branching fractions and mass spectra of B -> K pi pi gamma
Aubert, B; Barate, R; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; *et al.*
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Volume: 98 Issue: 21 Article Number: 211804 (2007)

Measurement of the B-+/- -> rho(+/-) pi(0) branching fraction and direct CP asymmetry
Aubert, B; Bona, M; Boutigny, D; Couderc, F; Karyotakis, Y; Lees, JP; Poireau, V; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 9 Article Number: 091103 (2007)

Measurements of CP-violating asymmetries in B-0 -> a(1)(+/-)(1260)pi(-/+) decays
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 98 Issue: 18 Article Number: 181803 (2007)

Search for neutral B-meson decays to a(0)pi, a(0)K, eta rho(0), and eta f(0)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 75 Issue: 11 Article Number: 111102 (2007)

Amplitude analysis of the decay D-0 -> K-K+pi(0)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
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Volume: 76 Issue: 1 Article Number: 011102 (2007)

e(+)e(-)-> K+K-pi(+)pi(-), K+K-pi(0)pi(0) and K+K-K+K- cross sections measured with initial-state radiation
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 012008 (2007)

Measurement of CP-violating asymmetries in B-0 ->(rho pi)(0) using a time-dependent Dalitz plot analysis
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 012004 (2007)

Observation of B+->rho K-+(0) and measurement of its branching fraction and charge asymmetry
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 011103 (2007)

Observation of CP violation in B-0 -> K+pi(-) and B-0 ->pi(+)pi(-)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 2 Article Number: 021603 (2007)

Search for D-0-(D-0)over bar mixing using doubly flavor tagged semileptonic decay modes
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 1 Article Number: 014018 (2007)

Branching fraction and charge asymmetry measurements in B -> J/psi pi pi decays
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 3 Article Number: 031101 (2007)

Branching fraction and CP-violation charge asymmetry measurements for B-meson decays to eta K-+/-, eta pi(+/-), eta ' K, eta 'pi(+/-), omega K, and omega pi(+/-)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 3 Article Number: 031103 (2007)

Measurement of CP-Violating asymmetries in B-0 ->(DD -/+)-D-(*)+/-
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 7 Article Number: 071801 (2007)

Measurement of decay amplitudes of B -> J/psi K-, psi(2S)K-*, and chi K-c1(*) with an angular analysis*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 3 Article Number: 031102 (2007)

Measurement of the time-dependent CP asymmetry in B-0 -> D(CP)((*))h(0) decays
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 8 Article Number: 080801 (2007)

Production and decay of Omega(0)(c)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 6 Article Number: 062001 (2007)

Search for the rare decay B ->pi l(+)l(-)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 5 Article Number: 051801 (2007)

Measurement of the hadronic form factor in D-0 -> K(-)e(+)nu(e) decays
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 052005 (2007)

Measurement of the relative branching fractions of (B)over-bar -> D/D-/D(**)l(-)nu(l) decays in events with a fully reconstructed B meson*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 051101 (2007)

Measurement of the tau(-)-> K-pi(0)nu(tau) branching fraction
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 051104 (2007)

Search for B+->tau(+)nu
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Lopez, L; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 052002 (2007)

Search for B-0 ->phi(K+pi(-)) decays with large K+pi(-) invariant mass
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 051103 (2007)

Study of B-0 -> rho(+)rho(-) decays and constraints on the CKM angle alpha
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 5 Article Number: 052007 (2007)

Improved measurement of CP violation in neutral B decays to ccs
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 17 Article Number: 171803 (2007)

Measurement of CP asymmetry in B-0 -> K-s(0)pi(0)pi(0) decays
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Grauges, E; Palano, A; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 071101 (2007)

Measurements of CP-Violating asymmetries in the decay B-0 ->(K+K-K0)
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
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Volume: 99 Issue: 16 Article Number: 161802 (2007)

*Measurements of the branching fractions of B-0 ->(KK+K-)-K-*0, B-0 -> K-*0 pi K-+(-), B-0 ->(KK+)-K-*0 pi(-), and B-0 -> K-*0 pi(+)pi(-)*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 071104 (2007)

Search for prompt production of chi(c) and X(3872) in e(+)e(-) annihilations
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 071102 (2007)

Search for the decay B+-> (K)over-bar(0)(892)K+*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 7 Article Number: 071103 (2007)

Amplitude analysis of the B-+/-->phi K(892)(+/-) decay*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW LETTERS
Volume: 99 Issue: 20 Article Number: 201802 (2007)

Evidence for the B-0 -> p(p)over-barK(0) and B+->eta K-c*(+) decays and study of the decay dynamics of B meson decays into p(p)over-barh final states*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
PHYSICAL REVIEW D
Volume: 76 Issue: 9 Article Number: 092004 (2007)

Measurement of CP asymmetries in B-0 ->(KSKSKS0)-K-0-K-0 decays
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Study of e(+)e(-)->Lambda(Lambda)over-bar, Lambda(Sigma)over-bar(0), Sigma(0)(Sigma)over-bar(0) using initial state radiation with BABAR
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
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The e(+)e(-)-> 2(pi(+)pi(-))pi(0), 2(pi(+)pi(-))eta, K+K-pi(+)pi(-)pi(0) and K+K-pi(+)pi(-)eta cross sections measured with initial-state radiation
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Evidence for charged B meson decays to a(1)(+/-)(1260)pi(0) and a(1)(0)(1260)pi(+/-)
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*Improved measurement of time-dependent CP asymmetries and the CP-odd fraction in the decay B-0 -> D*D+*(-)*
Aubert, B; Bona, M; Boutigny, D; Karyotakis, Y; Lees, JP; Poireau, V; Prudent, X; Tisserand, V; Zghiche, A; Tico, JG; Grauges, E; *et al.*
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CDF Collaboration

SUPA collaborators: Bussey, P; Chapman, JN; D'Auria, S; Martin, V; St Denis, R; Thompson, AS

Measurement of the B+ production cross section in pp(-) collisions at root s=1960 GeV
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Search for exotic S =-2 baryons in p(p)over-bar collisions at root s=1.96 TeV
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Measurement of sigma(0)(Lambda B)/sigma(0) x B(Lambda(0)(b)->Lambda(+)(c)pi(-))/B(B)over-bar(0)-> D+pi(-)) in p(p)over-bar collisions at root s=1.96 TeV
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Measurement of sigma(p(p)over-bar -> Z) center dot B(Z -> tau tau) in p(p)over-bar collisions at root s=1.96 TeV
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Measurement of sigma B-chi c2(chi(c2)-> J/psi gamma)/sigma B-chi c1(chi(c1)-> J/psi gamma) in p(p)over-bar collisions at root s=1.96 TeV
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Abulencia, A; Adelman, J; Affolder, T; Akimoto, T; Albrow, MG; Ambrose, D; Amerio, S; Amidei, D; Anastassov, A; Anikeev, K; *et al.*
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CLAS Collaboration

SUPA collaborators: Branford, D; Ireland, D; Livingston, K; Rosner, G; Watts, D

First measurement of beam-recoil observables C-x and C-z in hyperon photoproduction
Bradford, RK; Schumacher, RA; Adams, G; Amaryan, MJ; Ambrozewicz, P; Anciant, E; Anghinolfi, M; Asavapibhop, B; Asryan, G; *et al.*
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*Cross sections for the gamma p -> K-*0 Sigma(+) reaction at E-gamma=1.7-3.0 GeV*
Hleiqawi, I; Hicks, K; Carman, DS; Mibe, T; Niculescu, G; Tkabladze, A; Amarian, M; Ambrozewicz, P; Anghinolfi, M; Asryan, G; *et al.*
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HARP Collaboration

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Measurement of the production of charged pions by protons on a tantalum target
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HERMES Collaboration

SUPA collaborators: Kaiser, R; Rosner, G; Seitz, B

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Airapetian, A; Akopov, N; Akopov, Z; Amarian, M; Andrus, A; Aschenauer, EC; Augustyniak, W; Avakian, R; Avetissian, A; Avetissian, E; *et al.*
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LIGO Scientific Collaboration

SUPA collaborators: Cagnoli, G; Cantley, C; Casey, M; Heng, IS; Hough, J; Lockerbie, NA; Plissi, M; Robertson, NA; Rowan, S; Strain, K; Torrie, C; Ward, H; Woan, G

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LIGO Scientific Collaboration; ALLEGRO Collaboration

SUPA collaborators: Cagnoli, G; Cantley, C; Casey, M; Heng, IS; Hough, J; Lockerbie, NA; Plissi, M; Robertson, NA; Rowan, S; Strain, K; Torrie, C; Ward, H; Woan, G

Searching for a stochastic background of gravitational waves with the laser interferometer gravitational-wave observatory
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MAX-LAB NUCLEAR PHYSICS Working Group

SUPA collaborators: Martin, V; Walker, A

Measurement of the He-4(gamma,n) reaction from 23 < E-gamma < 70 MeV
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NA48 Collaboration

SUPA collaborators: Boyle, P; Hart, A; Kennedy, A; Kenway, R; Pendleton, B

Measurement of the ratio Gamma(K-L -> pi(+)pi(-))/Gamma(K-L -> pi(+/-)e(-/+)nu) and extraction of the CP violation parameter vertical bar eta(+-)vertical bar
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RBC Collaboration; UKQCD Collaboration

SUPA collaborators: Bussey, P; Doyle, AT; Dunne, W; Ferrando, J; Forrest, M; Saxon, D; Skillicorn, IO

First results from 2+1-flavor domain wall QCD: Mass spectrum, topology change, and chiral symmetry with L-s=8
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ZEUS Collaboration

SUPA collaborators: Annand, JRM; Ireland, D; McGeorge, JC

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