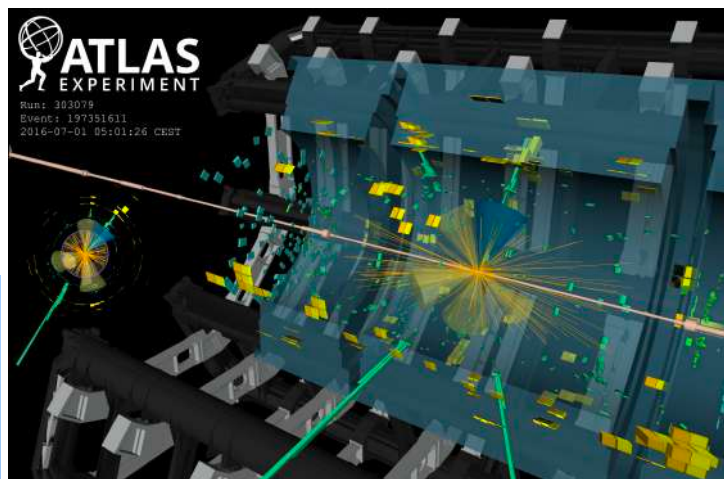


Particle Physics



Higgs Centre for Innovation at the University of Edinburgh/STFC/Royal Observatory Edinburgh



Visualisation of the $t\bar{t}h$ production event: direct measurement of the interaction between the top quark and the Higgs boson. Image: ATLAS

Experimental research at the Large Hadron Collider at CERN (ATLAS), quark flavour physics at CERN, neutrino physics, dark matter and future colliders

Theoretical research in lattice field theory for LHC, $g-2$ and flavour physics; phenomenology for LHC, cosmology and beyond; scattering amplitudes calculations, formal theory (little Higgs, supersymmetry, extra dimensions, turbulence; computing, data analysis and AI

Major collaboration and community roles including STFC Particle Physics Grant Panel members, ATLAS UK PI, STFC Science Board members, REF panel member

Headline facts

- ~ 200 Academics
- ~ 250 PhD students
- >170 papers published in 2017, including in Nature, Science and PRL journals

Theme Leader:

Victoria Martin
University of Edinburgh



THE UNIVERSITY
of EDINBURGH

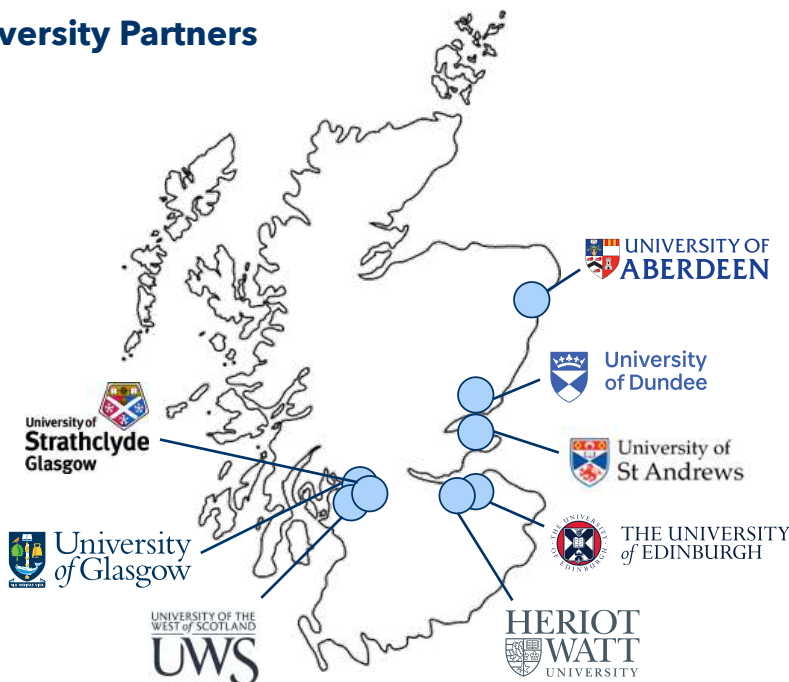




Scottish Universities Physics Alliance

Est. 2004

8 University Partners



7 Research Themes

- Astronomy & Space Sciences
- Condensed Matter & Materials Science
- Nuclear & Plasma Physics
- Particle Physics
- Photonics
- Energy
- Physics & Life Sciences

3 SUPA Associate Partners



SUPA is the strategic alliance of eight Physics Schools with a shared strategy for research, and has been highly successful in establishing Scotland as an international leader in research and advanced postgraduate training in Physics.

Collectively, SUPA forms the largest cluster of research power in physics in the UK, with a community of over 1,200 physicists (academics, research staff and postgraduate students) across Scotland.

Reflecting the strengths in our eight partner universities SUPA is theme led, with five sub-discipline themes, and two impact themes (Energy and Physics & Life Sciences).

SUPA Graduate School	600 registered PGR students 8 state-of-the-art video classrooms 50+ technical and transferable skills courses	SUSSP summer schools Annual showcase of research
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Headline Facts

Network of >1,200 physics researchers including:

- >300 Principal Investigators
- ~300 Post Doctoral Research Staff

Leading academics:

- 9 Fellows of the Royal Society
- 46 Fellows of the Royal Society of Edinburgh
- 10 RSE Young Academy / Global Academy Members

Numerous Personal Research Fellowships:

- 19 Royal Society
- 5 Royal Society of Edinburgh
- 15 Marie Curie
- 12 Chancellor's / Leadership Fellowships
- >30 Other

Major Awards:

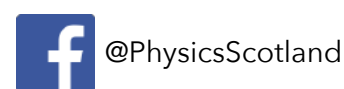
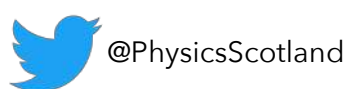
- 2018 Knighthood: Sir Jim Hough
- 2013 Nobel Prize: Peter Higgs

Research Performance during SUPA II (2010-2017):

- 37 European Research Council grants
- £381M of collaborative grant income
- £233M of non-collaborative grant income
- ~2,000 publications each year

Science Policy:

- Chief Scientific Advisor, Scottish Government: Sheila Rowan
- STFC Council: Richard Kenway, Sheila Rowan
- STFC Science Board: Peter Clarke, Christine Davies, Rory Duncan, Paul McKenna
- EPSRC Strategic Advisory Group: Ifor Samuel
- Chief Scientific Advisor, Food Standards Scotland: Norval Strachan



Sign up to the SUPA newsletter: www.supa.ac.uk/newsletter