2018 SUPA International Advisory Committee Meeting

09:00	**Registration: Tea/Coffee**	
09:30	**Welcome:**	Alan Miller, SUPA CEO Richard Williams, Principal & VC, Heriot Watt University
09:40	**Introduction:**	Malcolm Longair, Chair, SUPA IAC
09:55	**Research Pooling:**	Stuart Fancey, Director of Research & Innovation, SFC
10:10	**SUPA Overview**:	Alan Miller, SUPA CEO
10:30	Tea, Coffee and Refreshments	
10:45	**Research Themes:**	
10:45	*Astronomy and Space Sciences:*	Ken Rice
10:53	*Condensed Matter and Materials Science:*	Ian Galbraith
11:01	Nuclear and Plasma Physics:	David Ireland
11:09	Photonics:	Jennifer Hastie
11:17	Particle Physics:	Ben Wynne
11:25	Energy:	David French
11:33	Physics and Life Sciences:	Cait MacPhee
11:45	**Graduate School:**	Dawn Beddard, Vicky Ingram, Sean Farrell
12:15	Lunch	
12:45	**Lunch and Round table discussions**	
13:30	**Round table discussions: Feedback**	
13:45	**IAC Closed Session**	
14:15	**IAC Feedback and Recommendations**	
15:00	Close of Meeting	

The SUPA Team of 2018

CEO & Director of Graduate School:

Prof Alan Miller (0.5FTE): : alan.miller@supa.ac.uk

Graduate School Coordinators:

Dr Dawn Beddard (0.5FTE): dawn.beddard@supa.ac.uk

Dr Vicky Ingram (0.5FTE): vicky.ingarm@supa.ac.uk

E-Learning Technologist:

Sean Farrell (0.5FTE) s.j.farrell@hw.ac.uk

Admin Support Team:

Jean Greig (0.4FTE), Marjory Walker (0.6FTE), Jamie McIntyre (1.0FTE)

supacentral@glasgow.ac.uk

@physicsscotland

Web: www.supa.ac.uk/

SUPA Newsletter: www.supa.ac.uk/newsletter

Scottish Universities Physics Alliance

- established 2004

Scottish Funding Council
Promoting further and higher education

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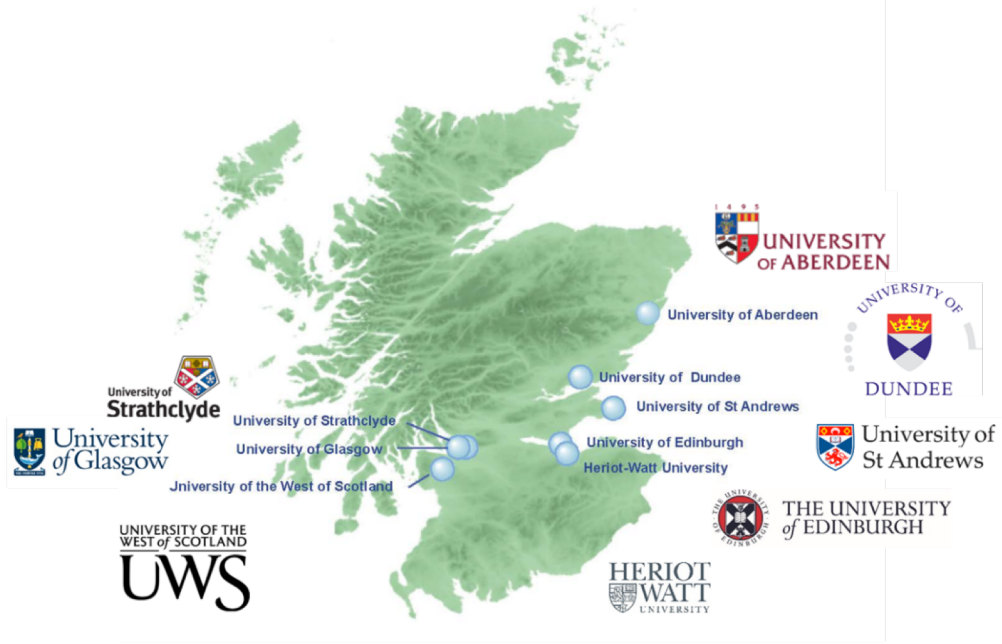
SUPA	SUPA II	SUPA Continued Development
2004	2010	2017 — 2022



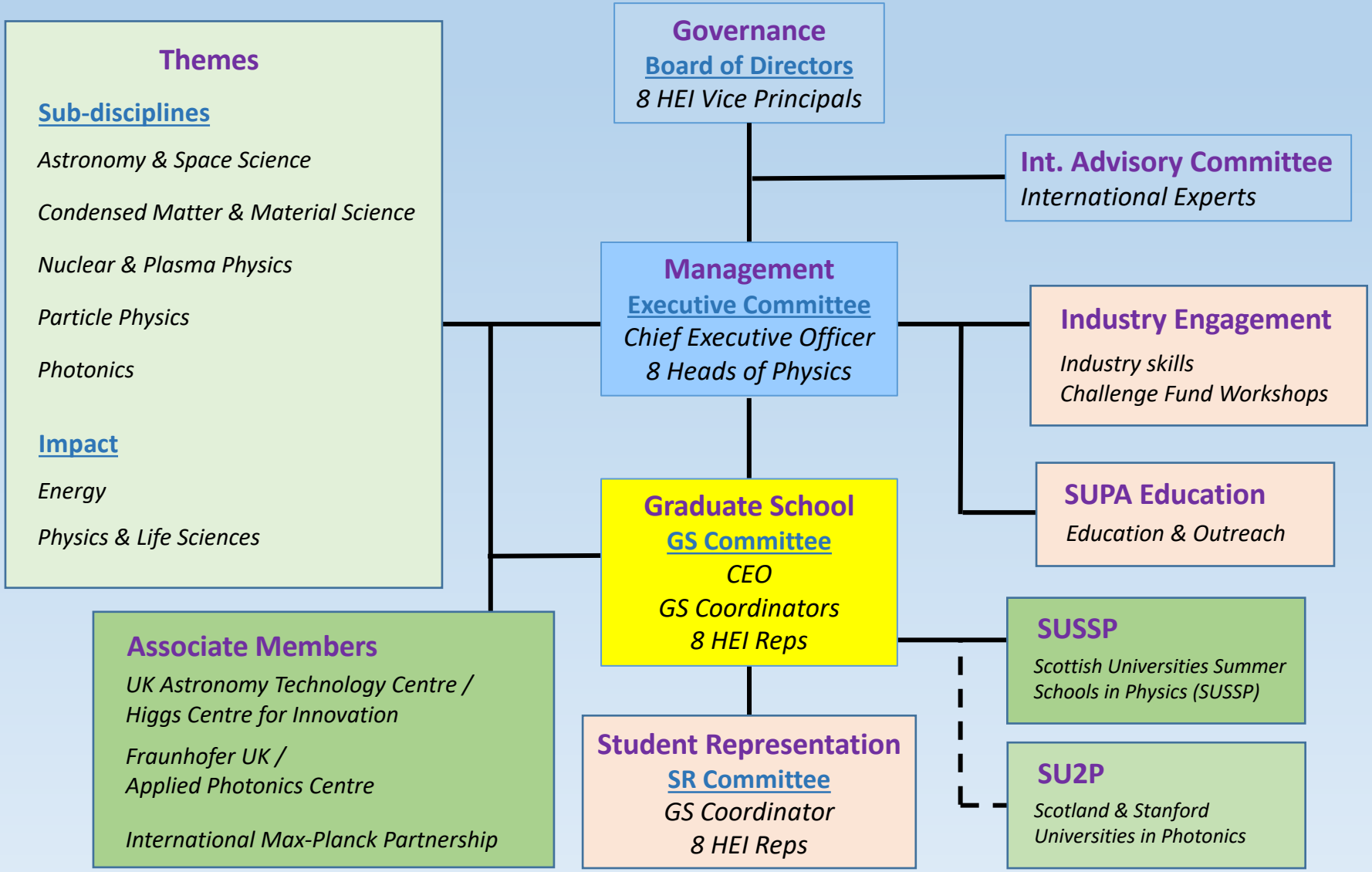
SUPA Associate Members:

STFC UK Astronomy Technology Centre · Fraunhofer UK · IMPP · PHYESTA Physics at Edinburgh & St Andrews

2017-22: Continued Development of SUPA

- a Scottish physics research base that is internationally competitive and improving its reputation in the world,
- access to an excellent learning experience and support for students and early career researchers,
- value created for the Scottish economy and society.

Structure


Themes
Sub-disciplines
Astronomy & Space Science
Condensed Matter & Material Science
Nuclear & Plasma Physics
Particle Physics
Photonics
Impact
Energy
Physics & Life Sciences
Governance
Board of Directors
8 HEI Vice Principals
Int. Advisory Committee
International Experts
Management
Executive Committee
Chief Executive Officer
8 Heads of Physics
Industry Engagement
Industry skills
Challenge Fund Workshops
SUPA Education
Education & Outreach
Graduate School
GS Committee
CEO
GS Coordinators
8 HEI Reps
SUSSP
Scottish Universities Summer Schools in Physics (SUSSP)
SU2P
Scotland & Stanford Universities in Photonics
Associate Members
UK Astronomy Technology Centre / Higgs Centre for Innovation
Fraunhofer UK / Applied Photonics Centre
International Max-Planck Partnership
Student Representation
SR Committee
GS Coordinator
8 HEI Reps

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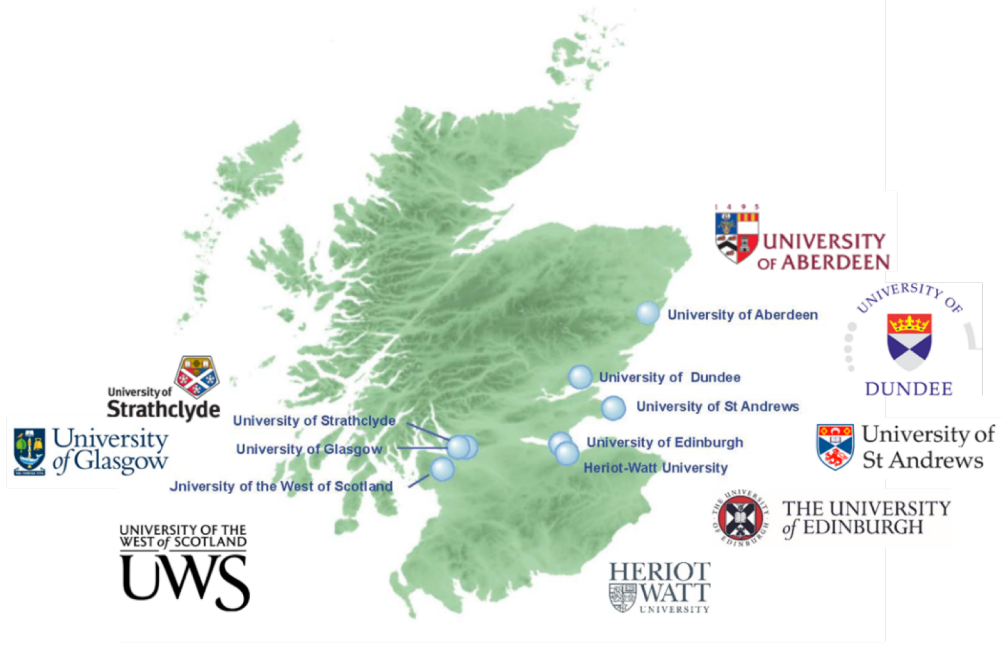

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Headline Facts

***Network of over 1300 physics researchers*:**
> 300 Principal Investigators
> 300 Post Doctoral Research Staff

Fellowships: (including Emeritus)

***12** Fellows of the Royal Society*
***67** Fellows of the Royal Society of Edinburgh*
***18** RSE Young Academy / Global Academy Members*
***123** Personal Research Fellowships:*
- ***29** Royal Society*
- ***6** Royal Society of Edinburgh*
- ***17** Marie Curie*
- ***21** Chancellor's / Leadership Fellowships*
- ***50** Other*

Major Awards:

*2013 Nobel Prize: **Peter Higgs***
*2016 RSE Royal Medal: **Jim Hough***

Science Policy:

*Chief Scientific Advisor to Scot Gov: **Sheila Rowan***
*STFC Council: **Richard Kenway***
*STFC Science Board: **Peter Clarke, Christine Davies, Rory Duncan***
*EPSRC Strategic Advisory Group: **Ifor Samuel***
*Chief Scientific Advisor to Food Standards Scotland: **Norval Strachan***

Research Performance:

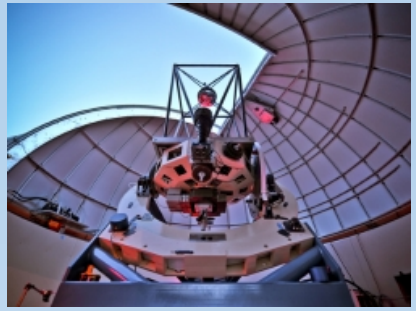
***36** European Research Council grants*
***£381M** of collaborative grant income since 2010*
***£233M** of non-collaborative grant income since 2010*
***~2,000** publications per annum*
***"SUPA"** included in publication addresses*

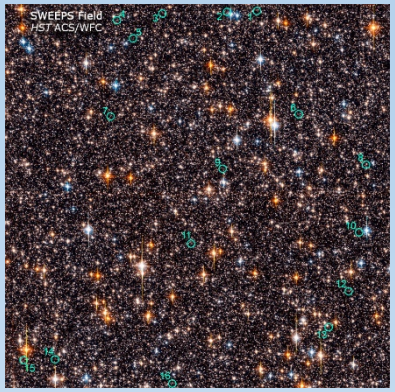
SUPA Graduate School:

***>600** registered PGR students*
***143** prize studentship awards since 2005*
***8** state-of-the-art video classrooms*
***50+** advanced courses*
EPSRC/STFC Doctoral Training Centres
SUSSP summer schools

SUPA II Funded Facilities

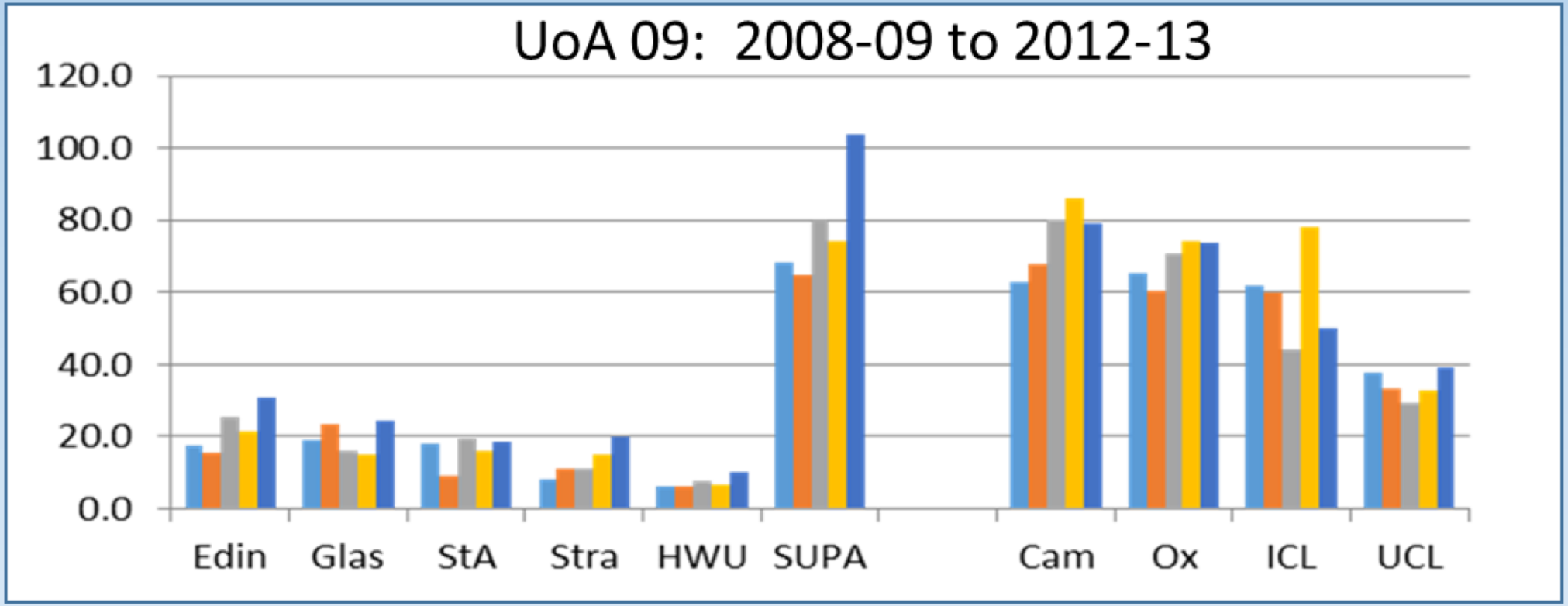
- SUPAscopes 1m Robotic telescope (Global network)
- The HARPS-N Spectrograph (La Palma)
- Low Vibration Facility / Clean Room (St Andrews)
- SCAPA - Scottish Centre for the Application of Plasma-based Accelerators (Strathclyde)
- MagTEM microscope (Glasgow)
- Electron beam writer, lithography, plasma reactive ion etcher systems & clean room (Heriot-Watt)
- Biophotonics Laboratory (Dundee)





Creating Critical Mass

REF2014: Annual PhD Graduations



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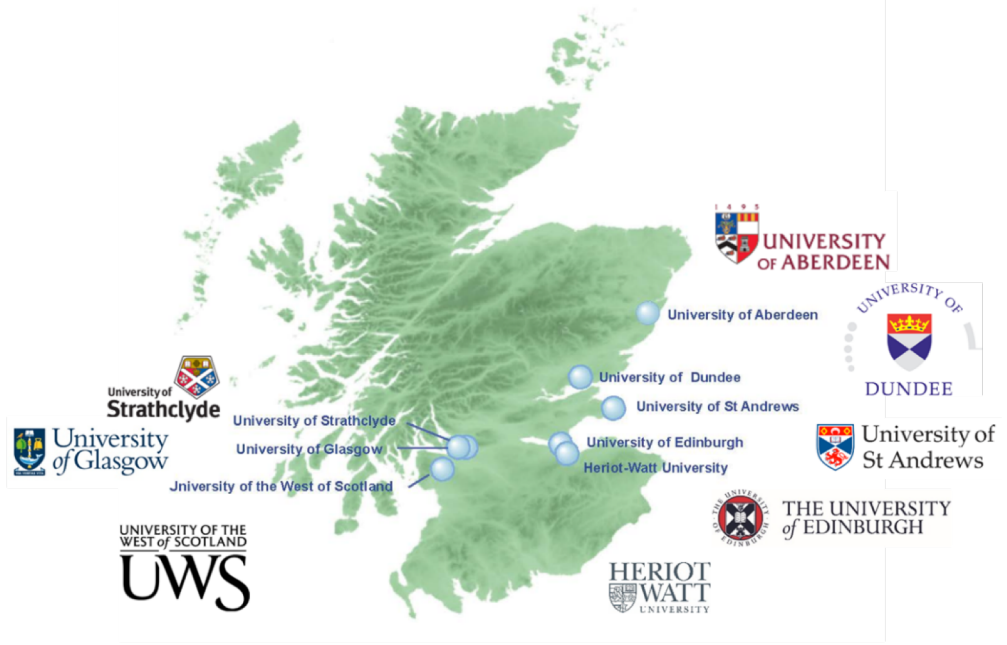

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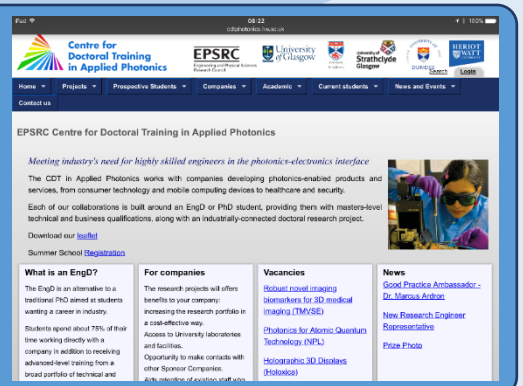
EPSRC & STFC CDTs

Applied Photonics

HERIOT WATT UNIVERSITY · UNIVERSITY OF DUNDEE · University of Glasgow · University of Strathclyde · University of St Andrews · EPSRC Engineering and Physical Sciences Research Council



Intelligent Sensing & Measurement

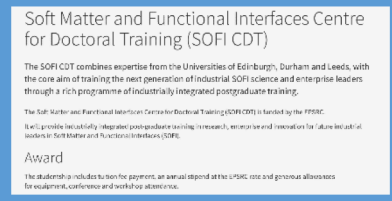
University of Glasgow · EPSRC Engineering and Physical Sciences Research Council · THE UNIVERSITY of EDINBURGH

- Letters of support
- Student access to My.SUPA
- Use of SUPA PS application system
- Courses via SUPA video classrooms
- Recording / storage / archive of lectures
- CPD lectures to industry from VC rooms
- SUPA funding of industry placements
- Partnering in career events
- Registration on SUPA Expert Tank
- SUSSP summer school support.

Soft Matter & Functional Interfaces

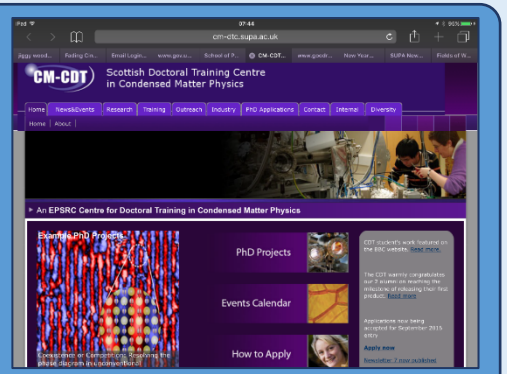
SOFI CDT

THE UNIVERSITY of EDINBURGH · Durham University · EPSRC Engineering and Physical Sciences Research Council · UNIVERSITY OF LEEDS



Condensed Matter Physics

University of St Andrews · THE UNIVERSITY of EDINBURGH · EPSRC Engineering and Physical Sciences Research Council · HERIOT WATT UNIVERSITY



Data Intensive Science

THE UNIVERSITY of EDINBURGH · University of St Andrews · Science & Technology Facilities Council · University of Glasgow

2018 CDT Call for Proposals

Submissions involving SUPA members invited to submit full proposals :

"Advancing and Applying Quantum Technologies"
Strathclyde (Stefan Kuhr) + Glasgow, Heriot-Watt

“Emerging technologies and data analysis for advanced imaging and sensing (EMERGE)”
Glasgow, (Daniele Faccio) + ?

“Physics of Quantum Materials”
St Andrews (Chris Hooley) + Edinburgh, Heriot-Watt

“Magnetic Resonance for Chemical, Material and Life Sciences - EastSPIN”
St Andrews Chemistry (Sharon Ashbrook) / Physics (Graham Smith) + Dundee (David Keeble)

“Diamond Science and Technology II”
Warwick (Mark Newton) + Strathclyde +?

“Industry-Inspired Photonic Imaging, Sensing and Analysis”
Heriot-Watt (Derryck Reid) + Edinburgh, Dundee, Glasgow, St Andrews, Strathclyde

“Soft Matter for Formulation and Industrial Innovation”
Durham (Colin Bain) + Edinburgh, Leeds

“Mathematical Modelling, Analysis and Computation (MAC-MIGS)”
Edinburgh (Ben Leimkuhler, Mathematics & includes Physics + Heriot-Watt / Maths)

“Biofilm Innovation, Technology and Engineering (BITE)
Liverpool (Rasmita Raval) + Southampton, Nottingham, Edinburgh

“Artificial Intelligence”
Edinburgh + Glasgow

Scottish Universities Summer Schools in Physics (SUSSP)

- established 1960

Established in 1960 by the 4 “ancients”

“to contribute to the dissemination of advanced knowledge and the formation of contacts among scientists from different countries”

- Schools of the highest international standing
- 1 to 2 weeks in duration including a social programme
- Top researchers from around the world provide 3 or 4 lecturers each
- Typically 60 to 100 research students and PDRAs
- >50% of ‘students’ from abroad

SUSSP 73 (2017): Gravitational Waves
SUSSP 74 (2018): Innovation and Entrepreneurship in Photonics

- SUSSP was granted charitable status in 1973 and is a registered charity with OSCR
- **Integrated with SUPA in 2017**
  - SUPA EC members are SUSSP Trustees

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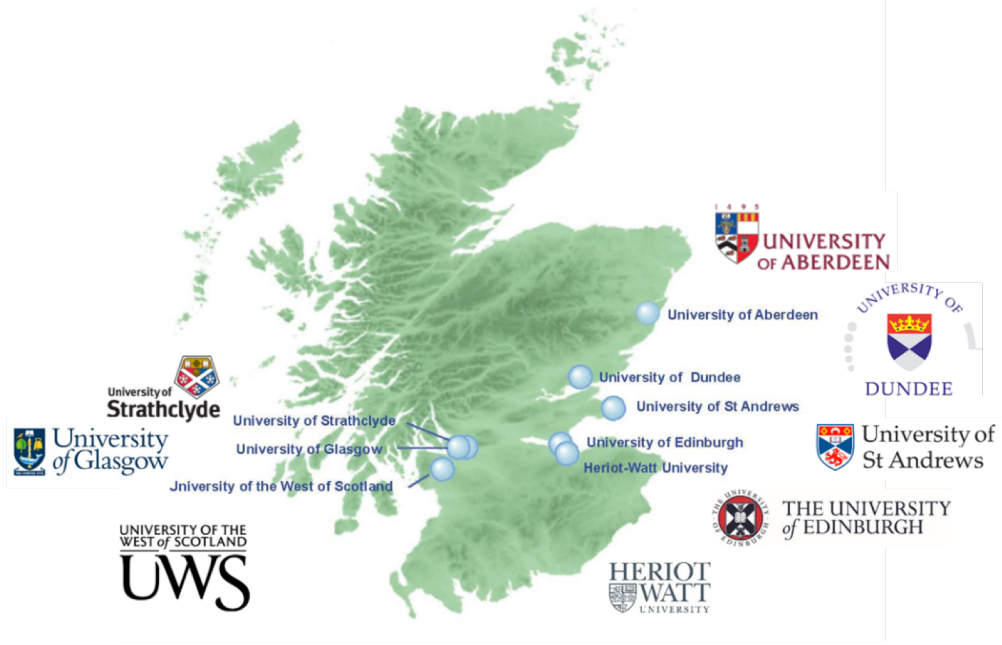

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Opening of the Higgs Centre for Innovation, May 2018

Economic Impact of Physics

From 2017 Report produced for the Institute of Physics (UK) by the *Centre for Economics and Business Research*