



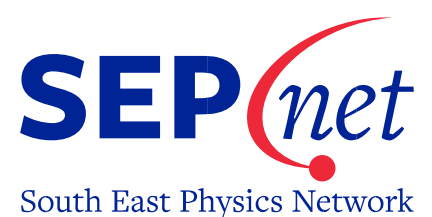
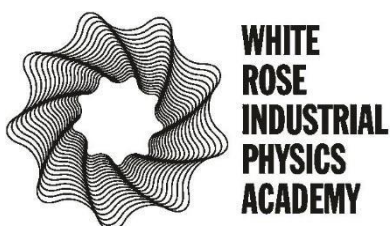
Creating an inclusive physics curriculum

Thursday 6 July 2023 University of Nottingham

Chaired by Professor Sir William Wakeham. Supported by the Institute of Physics

The Institute of Physics (IOP) 2020-2024 strategy has identified three key challenges that present the greatest barriers to unlocking the potential of physics and its impact in society. The first challenge is 'diversity and skills' and the need to build a diverse physics community to help address STEM skills shortages. This also makes sense from a business perspective that acknowledge recruiting a diverse and inclusive workforce can lead to better decision-making and business success. This key challenge of 'diversity and skills' is emphasised more strongly in the IOP's new degree accreditation framework. For example, universities must ensure the curriculum reflects the diversity of people who have contributed to physics and that the curriculum does not have compulsory or elective elements where students could be discriminated against (eg placements or field trips).

In this context SEPnet and WRIPA are hosting this meeting to explore how university physics departments can embed EDI across the curriculum and departmental culture to support an inclusive student learning experience and equitable graduate outcomes.



Programme

09.15 – 10.00: Registration and coffee

10.00 – 10.20: **Chair's Introduction** with Prof Sir William Wakeham and a [2022 event update](#) with Prof Jacob Dunningham

10.20 – 10.45: [Encouraging diversity and facilitating inclusion in physics - a personal and professional perspective](#) Prof Helen Gleeson OBE, Cavendish Professor of Physics in the School of Physics and Astronomy at the University of Leeds

10.45 – 11.15: Round table discussions

11.15 – 11.25: Feedback

11.25 – 11.40: [How to aim towards an inclusive curriculum](#)
Piers Wilkinson, Policy and Campaigns Lead, Inclusive Education Team, Diversity and Ability

11.40 – 12.20: Round table discussions

12.20 – 12.30: Feedback

12.30 – 12.40: Morning wrap-up Professor Sir William Wakeham

12.40 – 13.40: [What the IOP can offer to support students](#) Bradley Allsop, IOP

13.40 – 14.05: [SEPNet neurodiverse summer placement programme – lessons learnt and impact](#)

Claire Hepwood, Director of Employer Liaison South East Physics Network

14.05 – 14.35: Round table discussions

14.35 – 14.45: Feedback

14.45 – 15:10: [How scared should we be about ChatGPT](#)

Prof Philip Moriarty, School of Physics and Astronomy, University of Nottingham

15.10 – 15.40: Round table discussions

15.40 – 15.50: Feedback

15.50 – 16:00: Afternoon Wrap-up
Professor Sir William Wakeham

Speakers



Prof Sir William Wakeham
Chair of the South East
Physics Network (SEPNet) Bill retired as Vice-Chancellor of the University of

Southampton in 2009 after an extensive academic career. Additional roles have included Chair of the University and Colleges Employers' Association, a Member of the Engineering and Physical Sciences Research Council and a member of the Board of the South East of England Development Agency. In 2008 he chaired a UK Government Review of Physics in the UK, completed a review of the effectiveness of Full Economic Costing of Research in 2010 and a review of STEM graduate employability in 2016. Bill has been a specialist advisor to the House of Lords Committee on Science and Technology and a consultant to the Portuguese and Canadian Research Councils. Bill is a Fellow of the Royal Academy of Engineering where he was Senior Vice-President and International Secretary for several years. He is a Fellow of the Institution of Chemical Engineers, the Institution of Engineering and Technology and the Institute of Physics. Bill is currently an Emeritus Professor at the University of Southampton and a Visiting Professor at Imperial College London, Instituto Superior Tecnico, Lisbon, University of Exeter, as well as Chair of the Exeter Science Park Company, Non-Executive Director of Ilika plc, Trustee of Royal Anniversary Trust and the Rank Prizes Fund. He was made a Knight Bachelor in 2009 for services to Chemical Engineering and Higher Education.



Prof Jacob Dunningham
Executive Director of SEPnet
& **Prof of Physics at the University of Sussex** Jacob's research focuses on quantum technologies and he

is also Deputy Director of the Sussex Centre for Quantum Technologies and served as Head of Department from 2018 until 2020. He studied at the Universities of Auckland and Oxford and was a Reader at the University of Leeds before moving to Sussex.



Professor Helen Gleeson OBE, Cavendish Professor of Physics in the School of Physics and Astronomy at the University of Leeds. Helen was Head of School, Dean for

Research for Engineering and Physical Sciences at the University of Manchester and Head of School at the University of Leeds. She has more than 35 years of award-winning experience of experimental studies of liquid crystals. Helen was awarded an OBE in the Queen's Birthday Honours 2009 that acknowledged her work on equality and inclusion in physics in addition to her scientific achievements. She won the 2018 Times Higher Education Outstanding Research Supervisor of the Year award, reflecting both her approach to mentoring early career researchers and to improving the environment for minorities. Helen chairs the Bell Burnell Graduate Scholarship Fund and was appointed as the Institute of Physics Advisor to Council for Inclusion and Diversity in November 2021. Helen currently holds a prestigious Established Career Fellowship awarded by the Engineering and Physical Sciences Research Council in the UK.



Claire Hepwood, Director of Employer Liaison South East Physics Network.

Claire graduates with a degree in computer science. Claire worked in industry specialising

in high performance computing and parallel programming. Claire has held a variety of positions from Software Analyst to Professional Services Consultant working at Cray Research, SGI and ECMWF. Claire's most recent work at AWE focused on collaborating with their French counterparts and forging relationships with academia in the UK. Claire worked as a HPC Collaborator before taking on the position of Strategic Outreach Scientist working for the Chief Scientist. Claire sourced and organised sponsorship for WISE events and was influential in AWE becoming an active member of WISE. Claire is a member of the BSC, WiHPC and WISE. Claire has worked with SEPnet since 2017 supporting students and working with academics to embed employability into the curriculum. Claire is especially passionate about widening the participation and engagement of all students, irrespective of social, economic, ethnic or gender background.



Piers Wilkinson, Policy and Campaigns Lead, Inclusive Education Team, Diversity and Ability Piers has been deeply involved in representing disabled students

for over 7 years, culminating in their election to national representative positions during the last 5 years. Piers was initially appointed as a Student Voice Commissioner. Piers also worked as an access consultant specialising in inclusive design within education, digital accessibility, user design learning, and inclusive campaigns. Projects Piers has previously worked on include the 2016 UNCRPD inquiry, the Arriving at Thriving report on disabled student experiences, and providing expert advice on collaborative projects such as Student Minds' Mental Health Charter, and the 2019 Phaseout of Plastic Pollution Bill. As a Student Voice Commissioner, ensuring the lived experience of disabled students shapes and supports the decisions made about disabled students is a key priority of Piers'. The commission aims to achieve equity, from quality provision of DSA, to extracurricular opportunities.



Professor Philip Moriarty, School of Physics and Astronomy, University of Nottingham. Philip's research interests span nanometre scale science with a particular

current focus on single atom/molecule manipulation using scanning probes leading to numerous publications and grant awards. He has a keen interest in outreach activities, primary and secondary education, and both science and higher education funding policy. In addition to participating in a number of research council-funded public engagement projects (including Giants of the Infinitesimal), he has been interviewed, and written for, The Independent, The Guardian, Times Higher Education, BBC Radio 4, Die Zeit, and The Economist amongst others. Philip's also a regular contributor to the Sixty Symbols YouTube project and blogs as often as he can at Symptoms Of The Universe. In his spare time, he enjoys exploring the deep and fundamental connections that exist between quantum physics and heavy metal (music, not Au, Ag, and Cu!).