

## **Prof. LESLEY FRANCIS COHEN D.Phil., C.Phys., F. Inst.P., FCGI**

### **CAREER HISTORY**

- 2019 - Head of Experimental Solid State Physics, Imperial College London
- 2019 - Editor-in-Chief Applied Physics Letters
- 2016 - 2019 Consul for the Faculty of Natural Sciences, Imperial College London
- 2013 - 2016 Director of External Liaison, Dept. Physics, Imperial College London
- 2008 - 2013 Head of Experimental Solid State Physics, Imperial College London
- 2007 - 2014 Director of Post Graduate Studies, Dept. Physics, Imperial College London
- 2006 - Professor of Solid State Physics, Imperial College London
- 2003 - 2005 Reader in Solid State Physics, Imperial College London
- 1993 - 2002 Royal Society University Research Fellow, Imperial College London.
- 1991 - 1993 Research Assistant, Dept. Physics, Imperial College London.
- 1989 - 1991 Assistant Research Professor, Polytechnic University of New York, USA.
- 1988 - 1989 Postdoctoral Research Fellow, Polytechnic University of New York. USA.

### **EDUCATION**

- 1988 Cavendish Laboratory, University of Cambridge, Cambridge.  
Degree: PhD Experimental Solid State Physics at Low Temperatures.  
Thesis: Microwave Investigations into Superconducting Systems.
- 1983 Bedford College, University of London.  
Degree: BSc Physics - First Class Honours.

### **AWARDS AND FELLOWSHIPS**

- 2019 Fellowship Diploma of the City and Guilds
- 2017 President's Award for Excellence in Supporting the Student Experience
- 2014 Senior Investigator Fellowship, Science without Borders, CAPES Brazil.
- 2013 Imperial College Julia Higgins Medal
- 2002 Fellow of the Institute of Physics.
- 1993 Royal Society University Research Fellowship.

### **PUBLICATIONS**

- 407 publications (Web of Science citations 9068), h-index from Web of Science = 47
- Co-editor Proc. Roy. Soc. Discussion meeting, Colossal Magnetoresistance Materials 1997
- Co-editor Applied Superconductivity Conference Proceedings (ASC) 2000
- Co-editor Faraday Discussion Meeting Proc. Surface Enhanced Raman Spectroscopy 2006

### **PUBLIC UNDERSTANDING OF SCIENCE**

- 2017 Imperial College Science Festival (Spin Lab) 20,000 visitor
- 2014 STEMNET Ambassador
- 2012 Radio 4 – In Our Time – Melvin Bragg “Conduction”
- 2001 Radio 4 “Materials World” MgB<sub>2</sub> superconductors
- 1997 Editor of “Voices from Women in Science”
- 1996 Chair of IC-AWISE (association for women in science, technology and engineering)
- 1995 BBC2 television: Science Week, a chat show about the future of science.
- 1995 Launch of the 1995 Faraday Lecture series (at the top of the BT tower).
- 1995 Radio 4 Today Programme: Science education in schools, with John Humphreys
- 1994 Shortlisted for Royal Institution Christmas Lectures

As the first Ambassador for Academic Women in the Faculty of Natural Sciences at Imperial College LFC coordinated several departmental SWAN award applications. In 2013 she was the first recipient

of the Imperial College Julia Higgins Medal in recognition of her activities to promote transparency, equality and employment best practice in Imperial College.

### **INTERNATIONAL SCIENTIFIC COLLABORATION**

Current international academic collaborators include the following:

Prof L Ghivelder, Federal University, UFRJ Rio de Janeiro, Brazil, Prof S. Roy, Raja Ramanna Centre for Advanced Technology Indore India, Prof Zhou, Chinese Academic of Sciences, Beijing China, Prof M. Osofsky Naval Research Laboratory, Washington, USA, Dr A.S. Sefat, Oak Ridge, Prof T. Geballe, Dr I. Fischer, Stanford U., Prof V. Pecharsky, Ames Labs, Dr A. Waske, IFW Dresden, Prof O. Gutfleisch, TU Darmstadt, Dr N. Dempsey, Institute Neel CNRS, Dr V. Basso, INRIM Italy, Prof O. Conde, U. Lisbon Portugal, Prof N Pryds TU Denmark.

Industry collaborations include: Quantum Design, BASF, Evonik, Vacuumschmelze, NECI, Seagate, National Physical Laboratory, Renishaw, QinetiQ, Oxford instruments, STS.

### **KEYNOTES AND INVITED TALKS (LAST 5 YEARS)**

2022 International Symposium Moris Shimane Japan MAY 16-19  
2022 Spring German Physical Society, Regensburg, Germany, March 6<sup>th</sup> – 11<sup>th</sup>  
2021 Fall Meeting German Physical Society, Superconducting Spintronics, Sept  
2021 CMQM Bristol, Antiferromagnetic Spintronics  
2020 Antiferromagnets for low carbon cooling - Intermag 2020, Montreal (cancelled)  
2020 Superconducting Spin Triplet Spintronics – SPIE XIII San Diego (cancelled)  
2020 Orkney International Science Festival September 2020 (virtual)  
2019 Antiferromagnetic Spintronics UKRI  
2019 Antiperovskites, Magnetism 2019  
2018 Piezomagnetism, THERMAG VIII, Darmstadt, Germany  
2018 Hysteresis, CIMTEC, 8th Forum on New Materials, Perugia, Italy.  
2017 Gender issues in STEM, NCCR MUST/RESOLV Gender and Science, ETH Zürich  
2017 Multicalorics, Danish Days, Denmark  
2017 Antiferromagnetic Spintronics, AMN Nanomaterials, Aveiro, Portugal,  
2017 Baro and multicaloric Cooling, Darmstadt, Germany  
2017 Hysteresis in Calorics, Ferroic Cooling, Duisburg-Essen, Germany.  
2016 Magnetocalorics, Spring MRS, Phoenix AZ, USA  
2016 Ferroic Cooling, Duizberg-Essen, Germany.  
2016 Phase Transitions in Cool Materials. Royal Society Discussion Meeting.

### **EXTERNAL APPOINTMENTS**

2022 -2024 Royal Society Research Appointment A  
2021 EPSRC Network in Quantum Materials  
2021- London Light Steering committee  
2019 Danish Velux Foundation Scientific Review Board  
2017-2020 Scientific Advisory Board, CDT in Condensed Matter Physics, Bristol and Bath.  
2016-2021 Chair Scientific Advisory Board, SB Quantum Matter Institute, UBC, Canada  
2016-2021 Institute of Physics, Trustee and Council member  
2014 External Advisory Board - Leibnitz Institute IFW Dresden, Germany  
2014-2015 Science Advisory Board. Faculty of Natural Sciences, Kings College London.  
2011-2016 Co-Editor European Physical Letters.  
2009-2015 National Physical Laboratory Pathfinder and EMT steering committees.  
2004-2007 Board Member, Education Board for the Institute of Physics  
2004-2006 Board Member, Imperial College Consultants ICON.  
2003- EPSRC Peer Review College panel member.  
2003-2005 EPSRC Materials Strategic Advisory Technical Panel.

2003-2006 Business Fellow, London Technology Network.  
2001-2004 Technical Coordinator, EU funded programme MOSAIKS.  
2000-2009 Executive Board Member, Superconductivity, Science and Technology.

### **INTERNATIONAL ESTEEM**

Proposal evaluator for US Department of Energy  
Proposal evaluator for British Council (in India)  
Proposal evaluator for The Royal Society  
Proposal evaluator for the Israel Science Foundation  
Proposal evaluator for the National Science Foundation USA  
Proposal evaluator for the Estonian Science Foundation (ETF)  
Proposal evaluator for the Austrian Science Fund (ASF)  
Professorial appointment committee: UK (Royal Holloway), Denmark (DTU), Belgium (Brussels ULB), USA (Ames Laboratory, Washington State University, University of Virginia), University of Western Australia.

### **INTERNATIONAL CONFERENCE (programme committee/international advisory board)**

Several in 2020 – all cancelled

2019 Non-equilibrium Superconductivity and Spintronics - International Discussion Meeting, The Royal Society, UK.  
2018 CIMTEC Materials for Energy, Italy.  
2018 International Conference on Magnetism (ICM), San Francisco.  
2017 Quantum Africa 4, Tunis.  
2016 Joint European Magnetism Symposia (JEMS), Glasgow  
2015 International Conference on Magnetism (ICM) Barcelona.  
2014 Emergence of New Exotic States at Interfaces with Superconductors, Royal Society International Discussion Meeting, The Royal Society UK.  
2014 Magnetic Materials for Energy, CIMTEC Italy.  
2013 International Conference on Narrow Gap Semiconductor NGS-16, Hangzhou China.  
2012 Collaborative Conference on Materials Research (CCMR) South Korea.  
2012 Emergent Magnetic Monopoles in Frustrated Magnetic Systems - International Discussion Meeting, The Royal Society, UK.  
2011 International Conference on Narrow Gap Systems (NGS15), Virginia, USA.  
2005 Surface Enhanced Raman Spectroscopy, Faraday Discussion Meeting, UK.  
2004 Applied Superconductivity Meeting, Institute of Physics, UK.  
1996 Colossal Magneto Resistance - International Discussion Meeting, The Royal Society, UK.

### **RESEARCH GRANT INCOME**

Sustained research grant income funded by the EPSRC, the European Commission, the Leverhulme Trust and direct and in-kind funding from industry including DERA and QinetiQ (microwave properties of manganites, and spin transport properties of narrow gap semiconductors), National Physical Laboratory (microwave properties of superconductors and more recently on the integration of graphene and plasmonics), Renishaw (Surface enhanced Raman spectroscopy for health care diagnostics). Overall involvement since 1997 in the creation and scientific research delivery of 41 research grants, out of which PI of 33, totalling over £29M research budget. This income has facilitated the employment of over 30 post-doctoral researchers and 35 PhD students, now placed in industry, academia or the education sector.