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Post-school Education

• Peterhouse, Cambridge (1981-84) Natural Sciences Tripos. Physics & Theoretical Physics, 1st Class

• St John's College & Cavendish Laboratory, Cambridge (1984-88) PhD: Raman and birefringence studies of phase transitions; supervisor: Dr W Y Liang

Career

- Research Fellow, St Edmund's College, Cambridge (Sept 87 Dec 88)
- Croucher Foundation Research Fellow, Cavendish Laboratory (Aug-Dec 88)
- Lecturer, Department of Applied Physics & Physical Elecronics, Portsmouth Polytechnic (1989)

• Department of Physics and Astronomy, The University of Edinburgh: Lecturer (1990 - 1997), Senior Lecturer (1997-1999), Professor (1999 - present)

Awards

- Entrance Scholar (1981) and Senior Scholar (1983), Peterhouse, Cambridge
- Benefactor' Research Studentship (1984) and Scholar (1986), St John's College, Cambridge
- Croucher Foundation PhD Studentship (1984) and Postdoctoral Fellowship (1988)
- Nuffield Foundation Science Research Fellowship (1996)
- Personal chair in Condensed Matter Physics, The University of Edinburgh (1999)
- Fellow of the Institute of Physics (1999)
- Fellow of the Royal Society of Edinburgh (2004)
- Joop Los Fellow, Institute of Atomic and Molecular Physics, Amsterdam (2004)
- EPSRC Senior Research Fellowship 2007-2012
- Royal Society Wolfson Merit Award 2013-2018

Invited Research Visits

- École Supèrieure de Physique et de Chimie Industrielles (ESPCI), Paris, April-May 2001
- Institute of Atomic & Molecular Physics (AMOLF), Amsterdam, May 2002
- Isaac Newton Institute, Jan-July 2004, Statistical Mechanics of Biological Systems, January-June 2004
- Visiting Fellow, St. Edmund's College, Cambridge (Jan-June 2004)
- Visiting Scientist (10% appointment), AMOLF, Amsterdam (2004-2009)
- Institut für Physikalische Chemie, Universität Feiburg, Germany, July 2006
- Visiting Professor, École Normale Supèrieure, Paris, April 2008

- ESPCI, Paris Saint-Gobain Chair, February 2012 (salaried)
- Universität Konstanz, University Senior Research Fellow, May 2012 (salaried)

Journal editorial work

• Associate Editor, *Science Advances*, new AAAS journal launched in autumn 2014, one of 40 associate editors worldwide, responsible for soft matter

• Editor, *Advances in Physics X*, new Taylor and Francis journal to be launched in 2015, one of 20 commissioning editors worldwide, responsible for commissioning and processing articles in my areas

Other activities

- Consultant, Unilever Research (1998-2001)
- (Founding) Chairman, Complex Fluids Group, the Institute of Physics (1999-2005)
- Member, Liquids and Complex Fluids Board, J. Phys.: Condens. Matter (2000-2006)
- J. Statistical Mechanics: Theory and Experiments (e-journal), editorial board (2004-).

• Director, NATO Advanced Science Institute (ASI) 'Soft Condensed Matter Physics in Molecular and Cell Biology' (Edinburgh, March-April 2004)

• Danish Council for Independent Research, International Review Panel for Physics & Astronomy (2011-2014)

• Co-chair (with Prof Eric Furst, Delaware) of the 2018 Gordon Research Conference on Colloidal, Macromolecular and Polyelectrolyte Solutions (elected by delegates to the 2014 conference)

Postgraduate supervision

1 MSc and 27 PhD completed, 6 PhD in progress

Invited Lectures

Up to 2004: 33 invitations, including 2 summer schools & 3 Gordon Conferences

Since 2005:

([A] = talk on active matter, [AA] = conference/session devoted to active matter)

(34) Templeton Symposium, Water of Life: Counterfactual Chemistry and Fine-Tuning in Biochemistry, Varenna, Italy, 29-30 April 2005.

(35) Physics 2005, Warwick University, Coventry, UK, 10-13 April 2005, Biophotonics symposium.

- (36) Santa Fe Summer School in Complexity, Beijing, China, 25-29 July 2005 (4×1.5 hour lectures).
- (37) American Chemical Society, National Meeting, Washington DC, USA, August 28 Sept. 1, 2005.

(38) 2nd International Workshop on Dynamics in Viscous Liquids, Mainz, Germany, 9-12 April, 2006.

(39) 21st century COE and SEIKEN (No. 46) International Workshop on Recent Advances in Soft Matter Physics, Tokyo, Japan, 21-23 August, 2006.

(40) CECAM Workshop Patchy Colloids, Proteins and network forming liquids: Analogies and new insights from computer simulations, Lyon, France, 26-28 June, 2006.

(41) Dynamics of Complex Fluids: 10 years on, Isaac Newton Institute, Cambridge, October 2006.

(42) American Chemical Society 81st Surface Science Symposium, University of Delaware, 24-27 June 2007. [Symposium keynote]

(43) Meeting in Honour of Jean-Pierre Hansen, Trinity College Cambridge, 23-25 July 2007.

(44) Association of Science Education, Annual Conference, John Lewis lecture on physics education, 3-5 January 2008, Liverpool. [Main conference lecture on physics education]

(45) Deutsche Physikalische Gesellschaft, Spring Meeting 2008, Berlin.

(46) Nanotech 2008, Boston, USA, 1-5 June 2008.

(47) Joint EU-IFPRI (International Fine Particle Research Institute) Workshop on Colloidal Gels, 14 June 2008, Crete, Greece. [3-hour review lecture]

(48) Unifying Concepts in Glass Physics IV, Kyoto, Japan, 25-28 November 2008.

(49) British Society of Rheology, Winter Meeting, Leeds, 15-16 December 2008.

(50) MESOSOFT, Juelich, 17-21 2009.

(51) Royal Microscopical Society and Society of Chemical Industries, *Capturing Colloids*, Manchester, 24-25 March 2009.

(52) [A] Durham University, Rochester Lecture, 5 May 2009. [One of the university's main annual lectures]

(53) 6th International Discussion Meeting on Relaxations in Complex Systems, Rome, 30/8-5/9, 2009.

(54) Institute of Mathematics and its Applications (IMA), University of Minnesota, *Flowing Complex Fluids: Rheological measurements and constitutive modeling*, 14-18 September 2009.

(55) Institute of Physics, Complex Fluids Group, Colloids in External Fields, London, 2 September 2009.

(56) [A] Gordon Research Conference, *Colloidal, Macromolecular & Polyelectrolyte Solutions*, Ventura, California, 21-26 February 2010.

(57) École de Physique des Houches, Fundamental Physics of Amorphous Solids: Mechanical Properties and Plasticity, 14-19 March 2010.

(58) 11th International Conference on Ceramic Processing Science, Zurich, 29 Aug - 1 Sept 2010.

(59) [A] SFB TR6 Summer School, *Physics of colloidal suspensions and granular media*, Institut d'Études Scientifiques de Cargèse, 27 September -9 October 2010.

(60) [A] 10th Dutch Soft Matter Day, Utrecht, 26 May 2011.

(61) [A] 2011 Soft Matter Physics Gordon Conference, *Soft Matter Far from Equilibrium*, Colby-Sawyer College, USA, 14-19 August 2011.

(62) [AA] 8th Liquid Matter Conference, Vienna, 6-10 Sept. 2011. ['Biofluids & Active Matter' Keynote]

(63) Phase transition dynamics in soft matter, Kyoto, 20-22 February 2012.

(64) [A] Colloidal Dispersions in External Fields III, Bonn, 19-22 March 2012.

(65) [AA] Enrico Fermi Summer School, *Physics of Complex Colloids*, Varenna, Italy, 3-13 July 2012.
[3× 45 minute lectures on active colloids]

(66) [A] 13th Journées de la matière condensee (JMC13), Montpellier, France, 27-31 August 2012.

(66) [A] Jülich Soft Matter Days, 13-16 November 2012, Bad Honef, Germany.

(68) Macromolecules in constrained environments, Les Hoches, France, 24-29 March, 2013. [Plenary]

(69) [A] More Scientific Exchange with COMPLOIDS symposium, Philadelphia, USA, 17-19 April 2013.

(70) [AA] Ringberg Symposium 2013, Active particles and micro-swimmers, Schloss Ringberg, Germany, 2-11 July 2013.

(71) [AA] Active Fluids: Bridging Complex Fluids and Biofluids, Aspen Center for Physics, USA, 27 January - 1 February 2014.

(71) [A] Gordon Research Conference, *Colloidal, Macromolecular & Polyelectrolyte Solutions*, Ventura, California, 16-21 February 2014. [Discussion leader]

(72) [A] Soft Matter at Interfaces, Schloss Ringberg, Germany, 30 April to 3 May 2014.

(73) [A] EU SoftComp Network Annual Meeting, Crete, 27-30 May 2014. [Plenary]

(74) [AA] Summer School on Active Systems, Korean Institute of Advanced Studies, Guangju, Korea, 29 July to 4 August 2014. $[3 \times \text{one-hour lectures}]$

(75) [A] European Colloid and Interface Society (ECIS) 2014 Conference, Cyprus, 8-12 Sept. 2014. [Plenary]

Research grants

Below £500k: £2.34 million in total

Above £500k (completed):

2000-2004, SHEFC (Scottish Higher Education Funding Council), £1,873,000 (Joint with Dept. of Chemistry and Institute of Cell & Molecular Biology) Collaborative Optical Spectroscopy, Micromanipulation and Imaging Centre P N Pusey, W C K Poon et al.

2003-2007, EPSRC, £1.9 million Edinburgh Soft Matter and Statistical Mechanics Programme Grant M E Cates, W C K Poon et al.

2004-2007, Wellcome Trust, £793,196 (Joint with Schools of Chemistry & Engineering) Biology on Smart Silicon (BOSS): active chips for post-genomic applications W C K Poon, S L Flitsch, A J Walton and A R Mount

2007-2011, EPSRC, £3.7 million Edinburgh Soft Matter and Statistical Mechanics Programme Grant M E Cates, W C K Poon et al.

2007-2012, EPSRC (Senior Research Fellowship), £1.1 million The non-linear physics of driven colloids and bacteria W C K Poon

2011-2014, European Union Initial Training Network 'COMPLOIDS' (Physics of Complex Colloids), €673,634 (Edinburgh component) P S Clegg, W C K Poon and M E Cates

Above £500k (ongoing):

2011-2016, EPSRC, £4.9M Design Principles for New Soft Materials Programme Grant M E Cates, W C K Poon et al.

2013-2018, Royal Society Wolfson Merit Award, £75k The Physics of Bacteria-Soft Matter Mixtures W C K Poon

2014-2018, European Research Council (ERC) Advanced Grant, ${\it \in}\, 2.5 {\rm M}$ Physics of Active Particles W C K Poon

<u>Current industrial contracts</u>: > \pounds 1M (with Mars, Johnson Matthey, International Fine Particles Research Institute being the major funders)