

Julia Mary Yeomans FRS

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Nationality: British **Family:** Married, 4 daughters

Qualifications:

Diploma, Teaching and Learning in Higher Education (Oxford University) 2000.

D. Phil. Thesis, Critical Phenomena of Disordered Systems (Oxford University) 1979.

B.A. Physics, First class honours (Oxford University) 1976.

Positions held:

2013 Visiting Fellowship, Newton Institute, Cambridge
2011 Visiting Professor, Enhanced Education Programme, University of Kyushu, Japan
2002 – Professor of Physics, University of Oxford
1998 – 02 Reader in Physics, University of Oxford
1995 Visiting Professor, University of Padua, Italy
1995 – 98 University Lecturer, University of Oxford
1992 Visiting Professor, Catholic University of Leuven
1983 – Pauline Chan Fellow and Tutor in Physics, St. Hilda's College, Oxford
1981 – 83 Lecturer, Department of Physics, Southampton University
1979 – 81 Postdoctoral Research Associate, Cornell University, USA

Distinctions:

Annual Edward Delaval Lecture in Physics, Lincoln, 2019

Chair, Gordon Conference on Complex Active and Adaptive Matter, California, 2019

Ehrenfest Colloquium, Leiden, 2017

PS Narayanan Memorial Lecture, Department of Physics at IISc Bangalore, 2017

Guest of Honour, 115th Statistical Physics Conference, Rutgers, 2016

Elected Fellow of the Royal Society, 2013

3rd EPJE-de Gennes Prize lecture, 2013

ERC Advanced Grant, 2012–17

University of Oxford Teaching Award, 2008

Inaugural CMMS Distinguished Lecturer, University of Pittsburgh, 2007

EPSRC Advanced Fellowship, 1990-95

Scott Prize, Oxford University, 1976

Selected recent invited/plenary lectures (from > 60 invited conference talks since 2014):

Sept 2019 Plenary lecture, CECAM 50th Anniversary Meeting, Lausanne
July 2019 Gordon Conference, Liquid Crystals, New Hampshire
April 2019 Plenary lecture, CMD German Physical Society
Dec 2018 Plenary lecture, Australian Institute of Physics Congress
July 2018 Plenary lecture, CCP2018, California
Jan 2018 Plenary lecture, Physics@Veldhoven (Dutch National Meeting)
Jun 2017 Gordon Conference, Microfluidics, Tuscany
Apr 2017 Materials Research Society Spring Meeting, Arizona
Jun 2016 Keynote lecture, 3rd international symposium on Micro- and Nanomachines, Hannover
Mar 2016 American Physical Society, March Meeting
Sept 2015 European conference on Liquid Crystals, Manchester
July 2015 Soft matter self assembly, Varenna summer school
Jun 2015 Gordon Conference, Liquid Crystals, Maine
Jan 2015 Gordon Conference, Micro and Nanoscale Phase Change, Texas
July 2014 Plenary lecture, Liquids 2014, Lisbon
Feb 2014 Keynote lecture, Dutch National Meeting for Chemistry and Physics of Materials

Recent major grants (as PI or co-PI):

- 2019 - 22 HORIZON 2020 ITN ActiveMatter (Oxford PI)
- 2017-19 Royal Society International Exchange (with Taiwan) 12K
- 2017-18 BBSRC Priming Food Partnerships: Modelling Digestion (Oxford PI) 78K
- 2017-19 HORIZON 2020 ITN LUBISS (Oxford PI)
- 2016-18 EU Marie Curie: GelSwimming, 2 year PDRA (Andreas Zoettl)
- 2015-18 HORIZON 2020 ITN DISTRUC (co-PI)
- 2015-18 HORIZON 2020, FETOPEN: ABIOMATER €600K (Oxford PI)
- 2014-16 EMBO Fellowship, 2 year PDRA (Tyler Shendruk)
- 2012-17 ERC Advanced Grant, €1.5M

Selected recent publications:

(~250 publications: H=52, 10,000 citations, Web of Science; H=61, 15,700 citations, Google Scholar)

- Active nematics, A. Doostmohammadi, J. Ignes-Mullol, J.M. Yeomans and F. Sagues, *Nat. Comms.* **9** 3246 (2017).
- Onset of meso-scale turbulence in active nematics, A. Doostmohammadi, T.N. Shendruk, K. Thijssen and J.M. Yeomans, *Nature Comms.* **8** 15326 (2017).
- Multi-scale statistics of turbulence motorized by active matter, J. Urzay, A. Doostmohammadi and J.M. Yeomans, *J. Fluid Mech.* **822** 762 (2017).
- Focusing and sorting of ellipsoidal magnetic particles in microchannels, D. Matsunaga, F. Meng, A. Zottl, R. Golestanian and J.M. Yeomans, *Phys. Rev. Lett.* **119** 198002 (2017).
- Topological defects in epithelia govern cell death and extrusion, T.B. Saw, A. Doostmohammadi, J.M. Yeomans, B. Ladoux et al., *Nature* **544** (2017).
- Active micromachines: Microfluidics powered by mesoscale turbulence, S.P. Thampi, A. Doostmohammadi, T.N. Shendruk, R. Golestanian, and J.M. Yeomans, *Science Advances* **2** e1501854 (2016).
- Defect-mediated morphologies in growing cell colonies, A. Doostmohammadi, S.P. Thampi and J.M. Yeomans, *Phys. Rev. Lett.* **117** 048102 (2016).
- Upstream swimming in microbiological flows, A. J. T. M. Mathijssen, T. N. Shendruk, J. M. Yeomans and A. Doostmohammadi, *Phys. Rev. Lett.* **116** 028104 (2016).
- Stabilisation of active matter by flow vortex-lattices and defect ordering, A. Doostmohammadi, M.F. Adamer, S.P. Thampi and J.M. Yeomans, *Nature Comms.* **7** 10557 (2016).
- Symmetry-breaking in drop bouncing on curved surfaces, Y. Liu, M. Andrew, J. Li, J.M. Yeomans and Z. Wang. *Nature Comms.* **6** 10034 (2015).

Recent selected advisory appointments

- 2019 – Physical Sciences Panel, Hong Kong RAE
- 2018 – Council, Royal Society
- 2017 – Chair, International Scientific Advisory Committee, SISSA, Italy
- 2015 –16 Rapporteur, Max Plank Research Fields Evaluation
- 2016 – 18 External Examiner, University of Cambridge
- 2015 SAAC review of Soft Matter, Weizmann Institute
- 2015 – Advisory Board, International Iberian Nanotechnology Laboratory
- 2015 – Vice Chair, IUPAP Commission on Statistical Physics
- 2015 – CECAM, Scientific Advisory Committee
- 2014 – Institute of Physics, Awards Committee
- 2012 – 18 Nordita Scientific Program Committee
- 2011 – 15 ERC Starting/Consolodator Grants Evaluation Panel

Current editorial appointments: Oxford Encyclopaedia Advisory Board (2018 –); Editorial Board, *J. Phys. A* (2018 –); Editorial Board, *Molecular Physics* (2018 –); Editorial Board, *Phil. Trans. A* (2016–); Guest Editor, *Journal of Physics: Condensed Matter* special issue *Fluids at Structured Surfaces* (2016); Editorial Board, *Phys. Rev. E* (2014–); Editorial Board, *Journal of Statistical Physics* (2015 –)

Recent outreach activities: Kaapi with Curiosity public lecture, Bangalore (2017); Lecture, Portsmouth and District Physical Society (2017); Institute of Physics lectures: Oxford (2018), Cambridge (2018), Open University (2017), Berkshire (2016), Merseyside (2016), Manchester (2016), Hereford and Worcester (2016), London and SE (2015); Chair, Think Physics Advisory Committee (2014–18)