



# Tony Hey

## **Vice President**

### **Microsoft Research Connections**

As Vice President of Microsoft Research Connections, a division of Microsoft Research, Tony Hey is responsible for the worldwide external research and technical computing strategy across Microsoft Corporation. He leads the company's efforts to build long-term public-private partnerships with global scientific and engineering communities, spanning broad reach and in-depth engagements with academic and research institutions, related government agencies and industry partners. His responsibilities also include working with internal Microsoft groups to build future technologies and products that will transform computing for scientific and engineering research. Hey also oversees Microsoft Research's efforts to enhance the quality of higher education around the world.

Before joining Microsoft, Hey served as director of the U.K.'s e-Science Initiative, managing the government's efforts to provide scientists and researchers with access to key computing technologies. Before leading this initiative, Hey worked as Head of the School of Electronics and Computer Science; and, Dean of Engineering and Applied Science at the University of Southampton, where he helped build the department into one of the most respected computer science research institutions in England.

His research interests focus on parallel programming for parallel systems built from mainstream commodity components. With Jack Dongarra, Rolf Hempel and David Walker, he wrote the first draft of a specification for a new message-passing standard called MPI. This initiated the process that led to the successful MPI standard of today.

Hey is a fellow of the U.K.'s Royal Academy of Engineering. He also has served on several national committees in the U.K., including committees of the U.K. Department of Trade and Industry and the Office of Science and Technology. He was a member of the British Computer Society, the Institute of Engineering and Technology, and the Institute of Physics. Tony Hey also has a passionate interest in communicating the excitement of science to young people. He has written 'popular' books on quantum mechanics and on relativity. Hey is a graduate of Oxford University, with both an undergraduate degree in physics and a doctorate in theoretical physics.

## Appointments at the University of Southampton

- 1974–1981: Lecturer in Theoretical Physics
- 1981–1983: Senior Lecturer in Theoretical Physics
- 1983–1986: Reader in Theoretical Physics
- 1986–1994: Professor of Computation in the Department of Electronics and Computer Science
- 1994–1999: Head of Department of Electronics and Computer Science
- 1999–2001: Dean of the Faculty of Engineering and Applied Science

## National Appointments

- 2001–2005: Director of the UK e-Science Core Programme

## Research Appointments

- 1970–1972: Research Fellow in Theoretical Physics at California Institute of Technology, Pasadena, USA
- 1972–1974: Research Fellow in Theory Division at CERN, Geneva, Switzerland
- 1978: Visiting Research Fellow in Applied Mathematics Department at Massachusetts Institute of Technology, Cambridge, USA
- 1981: Visiting Research Professor in Theoretical Physics at California Institute of Technology, Pasadena, USA
- 1990: Visiting Senior Research Fellow in Computer Science Division, IBM Research, Yorktown Heights, USA
- 1998: Visiting Senior Research Fellow in Quantum Computing and Cryptography Group, Los Alamos National Laboratory, USA

## Educational and Professional Qualifications

- 1967: B.A. in Physics (1st Class), University of Oxford
- 1970: D.Phil. in Theoretical Physics, University of Oxford
- 1994: Member IEEE Computer Society
- 1996: Fellow of the British Computer Society
- 1996: Fellow of the Institute of Electrical Engineering
- 1997: Chartered Engineer, Engineering Council
- 2001: Fellow of the Royal Academy of Engineering

## Honours and Distinctions

- 1964-1967: Open Scholarship to Worcester College, Oxford
- 1967: Scott Prize for Physics, University of Oxford
- 1968-1970: Senior Scholarship to St. John's College, Oxford
- 1970-1972: Harkness Fellowship
- 1973: Royal Society European Fellowship
- 1974: CERN Fellowship 1986-1991: SERC Senior Fellowship
- 1987: *The Quantum Universe*, commended runner-up in 1987 COPUS Science Book Prize
- 1989: BCS Jubilee Lecturer
- 1998: IEE Computing and Control Engineering Journal Premium
- 2005: Commander of the British Empire (CBE) award for 'Services to Science'
- 2005: Honorary Fellowship, Cardiff University, UK
- 2006: IET John Pinkerton Memorial Lecturer
- 2006: Emerald Highly Commended paper award
- 2007: Emerald Literati Network. Highly Commended Award
- 2008: Honorary Doctor of Civil Law, Newcastle University, UK
- 2013: Honorary Doctor of Science, Drexel University, PA
- 2014: Honorary Doctor of Science, Swansea University, UK

## Editorial Activities

- European Editor for *Concurrency and Computation: Practice and Experience*
- Editorial Board Member for *International Journal of Parallel Computing*
- Editorial Board Member for *Scientific Programming*
- Editorial Board Member for *International Journal of Supercomputing and HPC*
- Guest Editor for *Parallel Computing*

## Public Understanding of Science

- 1999: Present Chairman of Southern Science and Technology Forum
- 2000: President of the Physics Section of the British Association for the Advancement of Science
- Regular Lecturer for the IOP and BAYS to Schools and Colleges
- Lecturer at annual BA meetings, most recently in Cardiff in 1998, Sheffield in 1999 and London in 2000
- Co-author of two popular science books: *The Quantum Universe and Einstein's Mirror*; expanded version *The New Quantum Universe* to appear soon.