

The Fourth Paradigm – Data-Intensive Scientific Discovery

(Keynote 1)

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Abstract: *This presentation will set out the eScience agenda by explaining the current scientific data deluge and the case for a “Fourth Paradigm” for scientific exploration. Examples of data intensive science will be used to illustrate the explosion of data and the associated new challenges for data capture, curation, analysis, and sharing. The role of cloud computing, collaboration services, and research repositories will be discussed.*

Bio: *Before joining Microsoft, Dr. 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, Dr. Hey was head of the school of electronics and computer science, and dean of engineering and applied science at the University of Southampton.*

As corporate vice president of Microsoft Research, Dr. Tony Hey is responsible for Microsoft’s collaborative research with universities and research community to speed research, improve education and foster innovation.

Dr. Hey is a fellow of the U.K.’s Royal Academy of Engineering and the American Association for the Advancement of Science (AAAS) in the U.S. He is also a fellow of the British Computer Society, the Royal Academy of Engineering, the Institute of Engineering and Technology, and the Institute of Physics. He was awarded a Commander of the Order of the British Empire (CBE) for services to science in 2005.