



Computational frontiers in scientific discovery

Thursday 4 November 2010

Organised by: Professor Janet Thornton CBE FRS, European Bioinformatics Institute; Professor Andrew Blake FRS, Microsoft Research; Dr Françoise Combes Member ADS, l'Observatoire de Paris; and Professor Tim Palmer FRS, University of Oxford and European Centre for Medium-Range Weather Forecasts

SESSION 1 : Computational frontiers in physical science Chair – Professor Tim Palmer FRS		SESSION 2: Computational frontiers in biological science Chair – Professor Janet Thornton CBE FRS	
09.45	<p>Welcome Professor John Pethica The Royal Society</p> <p>Professor Alain-Jacques Valleron Académie des sciences</p>	13.20	<p>Dr Dennis Bray University of Cambridge</p> <p>Cellular computations and the origins of behaviour</p>
10.00	<p>Professor Nicholas Ayache INRIA</p> <p>Computational medical imaging : towards a virtual physiological patient</p>	13.55	<p>Dr Peer Bork European Molecular Biology Laboratory</p> <p>Systemic studies of the ecosystem 'human gut': connecting molecules, cells and communities</p>
10.40	Tea and Coffee	14.30	Tea and Coffee
11.10	<p>Professor Matthias Steinmetz Astrophysical Institute Potsdam</p> <p>From the Big Bang to the Milky Way: challenges in scientific computing and data analysis</p>	15.00	<p>Professor Neil Ferguson Imperial College</p> <p>From pandemics to malaria eradication: computational challenges in epidemiology</p>
11.40	<p>Professor Julia Slingo Met Office</p> <p>Challenges for next generation Earth system modelling</p>	15.30	<p>Dr Ewan Birney European Bioinformatics Institute</p> <p>Understanding and exploiting the human genome</p>
12.10	Questions	16.00	<p>The future of computational methods panel discussion with Nicholas Ayache, Ewan Birney, Peer Bork and Tim Palmer Chaired by Professor Stephen Emmott Microsoft Research</p>
12.20	Lunch	17.00	CLOSE