Biographies of speakers

Nick Watkins (British Antarctic Survey)
Nick Watkins is a complexity analyst, and is currently with the Environmental Change and Evolution Programme at NERC's British Antarctic Survey (BAS), Cambridge, UK. He is also a visitor to LSE CATS and the Centre for Fusion Space and Astrophysics at the University of Warwick. Nick currently co-supervises a doctoral student with Cambridge University's Stats Lab. Nick's career has included space plasma data analysis and instrument modelling at Sussex, for the USAF/NASA CRRES and ESA's Cluster missions; analysis of radio noise measurements from Antarctica for BAS; and most recently, the establishment of a team that both develops and applies complexity science across BAS's remit, from heavy tails in the Earth's uctuating aurora to long range dependence in temperature, and complex networks in biology. The common threads through this diverse range of topics have been random uctuations and time series analysis.

Jochen Bröcker (Max-Planck-Institute for the Physics of Complex System)
Dr Jochen Bröcker's research interests are on the interface of practical application, theoretical development and industrial exploitation of the analysis of dynamic systems. His current focus is on dynamical systems analysis and statistics (eg, data assimilation, parameter estimation, and nonlinear ltering) with a view on geophysical applications. Further, he works on the assessment of forecasts, in particular probabilistic weather and climate forecasts, as well as on foundational issues in the theory of predictability and the communication of uncertainty to end users. A more recent theme of his work is uid mechanics and nonequilibrium statistical physics.

Until recently, Dr Bröcker was with the Max Planck Institute for the Physics of Complex Systems in Dresden, Germany. Prior to this appointment, he was a Research Of cer in the Centre For The Analysis Of Time Series (CATS) at LSE (2003 to 2007), where his main focus was the EPSRC-DTI Smith Institute Faraday partnership project entitled "Direct and Inverse Modelling in End-to-End Environmental Prediction" (PI Leonard Smith), the central objectives of which were to determine and enhance the economic value of weather forecasts. In September 2012, Dr Bröcker will join the University of Reading as a Lecturer in Meteorology and Statistics.

PROGRAMME

Tuesday 22 May	
09.30-10.00	Registration and Welcome coffee
Session 1: Characterising uncertainty (Chair Leonard Smith)	
10.00-10.45	Nick Watkins: "Five ways to misestimate risk"
10.45-11.00	Discussion
11.00-11.45	Jochen Bröcker: "How to interpret probabilistic forecasts (in particular for weather and climate)"
11.45-12.00	Discussion
12.00-12.45	Jim Baker: "Uncertainty and REDD: Characterising Forest Carbon"
12.45-13.00	Discussion
13.00-14.30	Lunch (Shaw Library)
14.30-15.30	On the rst topic (discussion led by Leonard Smith)
Session 2: Experimental design and robustness (Chairs: Pauline Barrieu & Henry Wynn)	
15.30-16.15	Henry Wynn: "Robustness and experimental design"
16.15-16.30	Discussion
16.30-17.00	Coffee break
17.00-17.45	Ron Bates: "Uncertainty Management in a complex engineering environment"
17.45-18.00	Discussion
19.00	Workshop dinner (LSE Senior Dining Room)
Wednesday 23 May	
Session 2 (continued) : Experimental design and robustness (Chair: Henry Wynn)	
10.00-10.45	Jordan Ko: "UQ in computer experiments with polynomial chaos"
10.45-11.00	Discussion
11.00-12.00	On the second topic (discussion led by Henry Wynn)
12.00-13.00	Lunch (Shaw Library)
Session 3: Decision-Making under Uncertainty (Chair: Roman Frigg)	
13.00-13.45	Bernard Sinclair-Desgagné: "Economic policy when models disagree"
13.45-14.00	Discussion
14.00-14.45	Massimo Marinacci: "Robust mean-variance analysis"
14.45-15.00	Discussion
15.00-16.00	On the third topic (discussion led by Roman Frigg)
16.30-18.00	Reception and book launch (LSE Senior Dining Room): Arthur Petersen: "Simulating Nature: A Philosophical Study of Computer-Simulation Uncertainties and Their Role in Climate Science and Policy Advice" (2nd edition)

Organizing Committee

Dr Pauline Barrieu
Professor Henry Wynn
Dr Roman Frigg
Professor Leonard Smith
Dr David Stainforth
Mrs Lyn Grove