Warwick
Mathematics Research Centre

Warwick EPSRC Symposium 2008/2009

Challenges in Scientific Computing

Organiser: Andrew Stuart

Computational Fluid Dynamics

Tuesday 1 – Thursday 3 September 2009

Organisers: Dwight Barkley (Warwick), Robert Kerr (Warwick), Richard Peltier (Toronto)

Programme

All talks will be in Lecture Room B3.02 • Mathematics Institute • Zeeman Building

19 August 2009

Tuesday 1st September 2009

09:30 **Registration** in the MRC room number B1.37 and Coffee in the Mathematics Common Room
10:30 **Paul Tucker** (Cambridge) *Developing large eddy simulation for turbomachinery applications including jet noise*
11:30 **Dimitris Drikakis** (Cranfield) *Implicit large eddy simulation of aeronautical and compressible turbulent mixing flows*
12:30 Lunch in the Mathematics Common Room
13:30 **Phil Archer** (Southampton) *Vortex rings*
14:30 **Flavio Giannetti** (Salerno) *An adjoint-based approach for the study of global instabilities*
15:30 Tea in the Mathematics Common Room
16:00 **Zheng-Tong Xie** (Southampton) *Urban LES*
18:00 **Drinks and Dinner** in the Mathematics Common Room

Wednesday 2nd September 2009

09:00 **Steve Derbyshire** (Met Office) *Cloud-resolving modelling*
10:00 Coffee in the Mathematics Common Room
10:30 **Zbigniew Piotrowski** (Warsaw) *Cloud resolving calculations*
11:30 **Gary Coleman** (Southampton) *Near-wall similarity and DNS*
12:30 Lunch in the Mathematics Common Room
13:30 **Jean-Christophe Robinet** (INSAM) *The effects of non-normality and non-linearity in separated boundary-layer flow*
14:30 **Uwe Ehrenstein** (IRPHE) *Global instability, model reduction and control of a separating boundary-layer flow*
15:30 Tea in the Mathematics Common Room
16:00 **Luca Brandt** (KTH) *Optimal perturbations in boundary layers by the time-stepper approach*
17:00 **Sylvain Lardeau** (Imperial) *Analysis of long and short-lived structures in turbulent flows using a dynamical system approach*
18:00 **BBQ** - Lawn outside Maths Institute weather permitting, or in The Street, Zeeman Building

Thursday 3rd September 2009

09:30 **Bob Beare** (Exeter) *Atmospheric boundary layers*
10:30 Coffee in the Mathematics Common Room
11:00 **Arnold Moene** (Wageningen, NL) *Mixing in the atmospheric boundary layer*
12:00 Lunch in the Mathematics Common Room
13:30 **Philipp Schlatter** (KTH) *High-Reynolds number turbulent boundary layers studied by numerical simulation*
14:00 **Chris Cantwell** (Warwick) *Numerical study of transient growth in expanding pipe flow*
14:20 **David Moxey** (Warwick) *Numerical studies of the transition to turbulence in long pipes*
15:00 Tea in the Mathematics Common Room
15:30 **Trip to Kenilworth Castle** (weather permitting) and 19:00 **Dinner** at Loch Fyne

If you have any questions during the workshop please see either Hazel Higgens or Yvonne Collins in Room B1.37 opposite the Common Room

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