

# **The 2nd Swansea-Tsinghua Workshop of Computational Mechanics and Computational Engineering, 22-23 July 2013, Swansea, UK**

**Monday 22 July**

**9:00 - 9:30 Coffee Break**

**9:30 - 10:00 Workshop Opening**

- Speech by Prof Javier Bonet (Head of Swansea Uni's College of Engineering)
- Speech by Prof Richard Davies (Vice Chancellor of Swansea Uni)
- Speech by Ms Emma Frearson (Head of Swansea Uni's International Office)
- Speech by Prof Zhuo Zhuang (Head of Tsinghua Uni's School of Aerospace)
- Prof Javier Bonet to present gifts to Tsinghua visitors

**10:00 - 11:40 (20 min presentation, 5 min question), Chair: Prof Ken Morgan**

- Prof Michael Friswell, Modelling of Morphing Aircraft
- Prof Xiong Zhang, Adaptive Finite Element Material Point Method
- Prof Michael Webster, Computational Rheology
- Dr Chenfeng Li, Computational Mechanics in Games and Movies

**11:40 - 13:00 Group Photo, Coffee and Buffet Lunch Break**

**13:00 - 14:40 (20 min presentation, 5 min question), Chair: Prof Song Cen**

- Prof Javier Bonet, Computational Simulation of Solid Dynamics using CFD Techniques
- Prof Chunxiao Xu, Drag-Reduction Control of Turbulent Channel Flow by Active Dimples
- Prof P Nithiarasu, Computational Biomedical Engineering
- Prof Yinghua Liu, Base Force Finite Element Method

**14:40 - 15:10 Coffee Break**

**15:10 - 16:25 (20 min presentation, 5 min question), Chair: Prof Xiong Zhang**

- Dr Yunqing Xuan, Port Met Office Unified Model to Fujitsu's HPC Platform to Support Extreme Weather Impact Modelling in Wales
- Prof Sondipon Adhikari, Stochastic Analysis of Dynamical Systems
- Dr Yan Liu, Multiscale Analysis of Impact Phenomena with Particle Methods

## **Tuesday 23 July**

**9:30 - 10:00 Coffee Break**

**10:00 - 11:40 (20 min presentation, 5 min question), Chair: Prof Johann Sienz**

- Prof Zhuo Zhang, Development of XFEM to Simulate Crack and Stress Wave Propagate in Bi-material and CB Shells
- Prof Dominic Reeve, Impact of Climate Change on Wave Energy Generation near the Wave Hub, Cornwall, UK
- Dr Wulf Dettmer, Fluid Flow with Moving Boundaries and Interfaces
- Prof Yuntian Feng, Fundamental Issues of Discrete Element Modelling

**11:40 - 13:00 Coffee and Buffet Lunch Break**

**13:00 - 14:15 (20 min presentation, 5 min question), Chair: Prof Zhuo Zhuang**

- Dr Raoul van Loon, Biological valve modelling
- Dr Xiangrong Fu, Characteristic Equation Solution Strategy for Deriving the Fundamental Analytical Solutions of Elasticity
- Dr Paul Ledger, Simulation of Coupled Electro-Mechanical-Fluid Systems using hp Finite Elements

**14:15 - 14:45 Coffee Break**

**14:45 - 16:00 (20 min presentation, 5 min question), Chair: Prof Djordje Peric**

- Prof Michael Edwards, Multiscale Finite Volume Methods for Flow in Porous Media
- Dr Zhanli Liu, X-FEM modeling of Polyurea-based Composites
- Dr Karol Kalna, 3D Finite Element Monte Carlo Simulation of Electron Transport in nanoscale FinFETs

**16:00 - 16:20 Workshop Closing**

- Speech by Prof Javier Bonet (Head of Swansea Uni's College of Engineering)
- Speech by Prof Zhuo Zhuang (Head of Tsinghua Uni's School of Aerospace)