

## BICOM NEWS 2009

Brunel University has very active and internationally recognised research groups in Computational Mathematics, Applied Analysis and Continuum Mechanics which are linked in the Brunel Institute of Computational Mathematics (BICOM).

Research interests include the computational modelling, analysis and numerical analysis of nonlinear partial differential equations and systems arising from applications in biology, physics and mechanics.

BICOM has successfully attracted external research funding. Its members collaborate with national and international colleagues. BICOM regularly hosts workshops and conferences, in particular the triennial MAFELAP (Mathematics of Finite Elements and Applications) conference, which has an established international reputation. In 2006 BICOM took place for the twelfth time and more than delegates 320 from all over the world attended this event.

BICOM members look forward to supervising PhD students in their research areas including mathematical biology (pattern formation), solid mechanics (elasto-plasticity, viscoelasticity, fracture, thermoforming, plates and shells), adaptive finite elements methods, boundary element methods, domain decomposition methods, nonlinear PDEs and functional analysis.

The teaching and supervision in the MSc Programme “Computational Mathematics with Modelling” is being provided by highly motivated academics from BICOM and the Mathematical Physics group.

The strengths of this MSc Programme are its specific combination of real-world modelling, numerical methods, scientific computing and mathematical analysis, its research-led taught courses (research-active staff are teaching in their core disciplines), the scientific relevance of its contents (due to its proximity to cutting-edge research), its internationality (students are being attracted from several European and non-European countries), and its excellent staff-student ratio.

*Dr Matthias Winter*

*Course Director*

*MSc Computational Mathematics with Modelling*

