

## **CICADA Phd Studentship Available**

### **PhD Topic: Reduced order dynamical systems**

A PhD studentship is available from September 2009 at the Centre for Interdisciplinary Computational and Dynamical Analysis (CICADA) based at the School of Mathematics at the University of Manchester.

<http://www.cicada.manchester.ac.uk>

The PhD project will investigate the behaviour of reduced order models of nonlinear dynamical systems, The student will participate in an internationally leading multidisciplinary research group investigating novel methods for the study of hybrid systems. The research will build on a novel approach to model order reduction, see

D.S. Broomhead and M.J. Kirby, *Dimensionality Reduction Using Secant-Based Projection Methods: The Induced Dynamics in Projected Systems*, *Nonlinear Dynamics* 41: 47-67

CICADA research has a strong focus on the study of problems from real-world applications. Current application areas include; controllers for automated vehicles or manufacturing processes, systems biology, for example neuron spike signalling or gene expression networks, control of water delivery networks, simulation of computational processing in the human brain.

We are seeking a recent graduate with a good degree from mathematics or a discipline with a high mathematical content. Interest in dynamical systems and/or numerical methods would be highly advantageous. Informal enquiries should be made to the Director of CICADA, Professor Dave Broomhead.

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The studentships pay fees at UK/EU rates and a maintenance award level, currently 12,940 per annum.