



New Frontiers In The Mathematics of Solids Fracture Workshop - 10th March 2008

Fracture mechanics is a significant scientific field of great practical importance. Recently the subject has been invigorated by a number of important accomplishments. From the viewpoint of fundamental science there have been interesting new developments aimed at understanding fracture at the atomic scale; simultaneously, active research programmes have focussed on mathematical modelling, experimentation and computation at macroscopic scales. The workshop aims to examine various different approaches to the modelling, analysis and computation of fracture. The programme will allow time for discussion.

Programme

- 10.00 Registration and coffee in the Mathematical Institute Common Room**
- 10.40 Introduction** by Endre Suli
- 10.45 Andrea Braides (Università di Roma II, Italy) : *Variational lattice models of fracture***
- 11.30 Chris Larsen (Worcester Polytechnic Institute, USA) : *Fracture evolution and locality (finish at 12.15)***
- 12.30 Buffet lunch at St Anne's College**
- 14.00 Adriana Garroni (Università di Roma, "La Sapienza", Italy) : *Threshold based quasi-static evolution for damage***
- 14.45 Robert Rudd (Lawrence Livermore National Laboratory, USA) : *Void growth and ductile fracture from the atomistic level***
- 15.30 Tea in the Mathematical Institute Common Room**
- 16.00 Matteo Negri (Università di Pavia, Italy) : *Quasi-static evolutions of a brittle crack: analytical and numerical aspects in a model case***
- 16.45 Closing discussion**
- 17.00 Close**

All sessions will be held in the Mathematical Institute 24-29 St Giles, Oxford.

How to register and get more information: You can register on line on our website at www.maths.ox.ac.uk/oxmos or by email (oxmos@maths.ox.ac.uk) and phone 01865 280609