



**Department of Mathematical Sciences**  
**RESEARCH CENTRE IN MATHEMATICS & MODELLING**  
Third RCMM Annual Workshop on  
“Asymptotic & Computational Models of Fracture and Wave Propagation in  
Structured Media ”  
organised by Liverpool University, LJMU sponsored by RCMM

Friday, 28<sup>th</sup> May 2010, the venue is  
Room G16, Mathematical Sciences Building, University of Liverpool

09:30 – 10:00 Coffee and Welcome

10:00 – 10:35 I.S. Jones (LJMU, Liverpool)  
**“Dynamic response of structured solids with multi-scale resonators”**

10:35 – 11:10 N.V. Movchan (University of Liverpool)  
**“Waves, dispersion and filtering in structured plates”**

11:10– 11:45 M. Gei (University of Trento, Italy)  
**“Wave propagation in periodic and quasi-periodic structures”**

11:45 – 12:20 S.R.L. Guenneau (University of Liverpool)  
**“Colour of cloaks”**

12:20 – 12:55 Z. Yang (University of Liverpool)  
**“Development and application of the scaled boundary finite element method  
in fracture problems”**

12:55 – 13:30 L u n c h and D i s c u s s i o n

13:30 – 14:05 W. Daniels (SERCO Assurance)  
**“2010 role of modelling in effective inspection design and qualification”**

14:05 – 14:40 I.D. Abrahams (University of Manchester) **“T.B.A.”**

14:40 – 15:15 G.S. Mishuris (Aberystwyth University)  
**“Fracture and asymptotics of stress-intensity factors for advancing interfacial  
cracks”**

15:15 – 15:50 M. Nieves (LJMU, Liverpool)  
**“Meso-scale models for transmission problems”**

15:50 - 16:25 R.C. McPhedran (University of Sydney, Australia)  
**“Something from nothing, or nothing from nothing: creation of total band  
gaps by a set of measure zero”**

16:25 - 17:00 A. Movchan (University of Liverpool)  
**“Uniform asymptotics and localisation in structured media”**

17:00 – 17:15 Closing remarks