

# Welcome



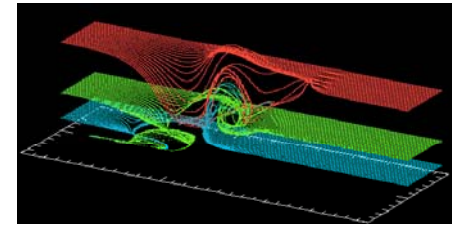
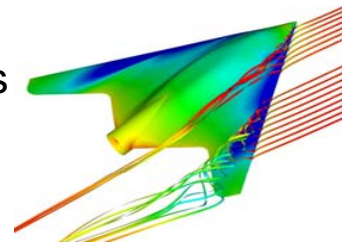
UNIVERSITY OF  
LIVERPOOL

# Centre for Engineering Dynamics

**Director: Prof John Mottershead**

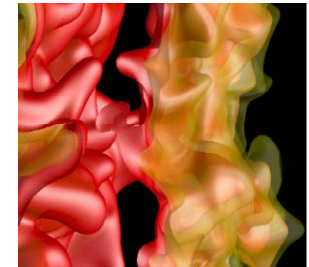
## Theoretical and experimental fluid dynamics

- CFD method development
- Aerodynamics, combustion, transition, non-Newtonian flows



## Structural Dynamics and Aeroelasticity

- Structural dynamics and testing
- Model updating, uncertainty analysis, moving loads



## Flight simulation



## IC engines and drivetrains

### Hosted Centres

- Agusta-Westland Liverpool Advanced Rotorcraft Centre
- Virtual Engineering Centre



# Marie Curie Excellence Team ECERTA

[www.cfd4aircraft.com](http://www.cfd4aircraft.com)

- Marie Curie scheme of EU sixth framework is focussed on people
- Excellence Teams to establish a European focal point in a subject area
  
- Enabling Certification by Analysis
- 4 year project – 2007-2010
  
- Team Leader: Prof Ken Badcock
- Collaborator: Prof John Mottershead
- Researchers supported:
  - Simao Marques (experienced)
  - Hamed Khodaparast (experienced)
  - Sebastian Timme (early)
  - Marco Prandina (early)
  
- Providing the budget that is supporting this workshop

# Workshop

- Context
  - Dissemination of the outcomes of the EU project ECERTA
  - Complement the established AFRL series on Aeroelastic Clearance (Beran)
  - Follow-up 2008 EOARD/AFRL workshop on bifurcation/model reduction
- Particular Hopes
  - Capture the requirements of EU industry for research in aeroelasticity
  - Stimulate research around a number of test cases
- Record
  - Plan is to collect presentations on the web pages
    - Can be behind a password if requested

# Programme

Monday morning: ECERTA outcomes  
afternoon: Aeroelasticity

**Monday evening: dinner at the Side Door, Hope St (map in hand outs)**

Tuesday morning: Uncertainty in Structural Dynamics and Aeroelasticity  
afternoon: Industry and test cases

[Wednesday – hands-on with test cases: register interest today with Ken Badcock for aeroelasticity and John Mottershead for structural dynamics]