

2nd announcement

Workshop on
Analytical methods in thermo-acoustics
24 - 26 May 2010

A series of lectures, combined with hands-on exercises, will give an introduction into modern analytical methods for modelling sound produced by combustion and vortices as well as sound/structure interaction. The workshop is targeted at researchers in academic and industrial institutions with an interest in modelling combustion instabilities. Some background in fluid mechanics and engineering mathematics will be expected of the workshop participants. Analytical methods in thermo-acoustics not only provide quantitative information for the validation of numerical methods, but they also give important physical insight into combustion instabilities.

Lecturers:

Professor Michael Howe (Boston University)
Dr Karthik Balachandran (LMS International, Leuven)
Professor John Chapman (Keele University)
Dr Maria Heckl (Keele University)

Tentative list of topics:

Network models and transfer functions
Acoustic analogy equation and the Green's function
Introduction to vortex sound
Vorticity effects on indirect combustion noise
Sound-structure interaction and plate resonances
Sound field in tubes
System identification and the Wiener-Hopf equations

Venues:

School of Computing and Mathematics, Keele University, Staffordshire ST5 5BG, UK
and the nearby conference hotel
Wychwood Park, Weston, Crewe, Cheshire CW2 5GP, UK.
Transport between the two venues will be provided.

Website and registration:

Please visit <http://www.scm.keele.ac.uk/limousine/index.php> .

This event is the third in a series of workshops within the FP7 project LIMOUSINE and is held with support from the European Commission. Researchers who are interested in the workshop, but not partners in the LIMOUSINE project, are also very welcome.