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WCPM/CSC joint seminar

Computational and mathematical modelling of acoustic liners in aircraft engines

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Warwick Mathematics / WMG

Monday, 13th February, 1 p.m.
D2.02 Seminar room, Engineering

Abstract: In order to fly, new aircraft must meet more and more stringent noise restrictions. One of the main components in reducing aircraft engine noise are acoustic liners. However, the mathematical modelling of acoustic liners, and the resulting Computational AeroAcoustics (CAA) simulations used to predict overall noise, have some rather major modelling problems which have only recently been understood.

In particular, numerical simulations of acoustic liners are unstable, and so current practice is to use heavy filtering (and/or under-resolution) to obtain a stable solution. Is flow over an acoustic liner actually unstable? How should you simulate a system that includes an unstable region, especially when you want low dissipation and low dispersion to accurately predict acoustics? Will this have any actual effect on industry? These questions, and more, will be *asked* in this talk.

A buffet lunch is available from 12:45 pm.

More info: http://warwick.ac.uk/wcpm/seminars

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