

Turbulence and Flow Control Research Group Seminar Series CITY UNIVERSITY LONDON



“Self-similar adverse pressure gradient turbulent boundary layer flow”

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ABSTRACT

This seminar will review the concept of self-similarity as it pertains to adverse pressure gradient turbulent boundary layer (APG-TBL) flow. A direct numerical simulation with Re_θ up to approximately 6700 has been carried out - the method and first order and second order statistics of this DNS will be presented and discussed. A complimentary water tunnel experiments which used high-spatial resolution PIV of a APG-TBL has also been undertaken. Details of the experimental set-up in the water tunnel and 2C-2D PIV will be presented as will first and second order statistics of this self-similar APG-TBL experiment. The experimental results will be compared to the DNS results and discussed.

SPEAKER'S BIO

Julio Soria holds a Personal Chair in Mechanical Engineering (Aerodynamics and Fluid Mechanics) within the department of Mechanical and Aerospace Engineering in the Faculty of Engineering at Monash University. He is interested in the physics and control of turbulent flows. He uses both physical experiments and direct numerical simulation to investigate fluid physics. His current research interests include: attached and separated turbulent boundary layer flow, subsonic and supersonic jet flow, swirling flow, physics and the development of non-intrusive optical experimental measurement methods.

VENUE, DATE & TIME

City University London (click on figures for further details).

Room: EG07

Building: Drysdale

Date: 22nd May, 2015

Time: 12:00

ORGANIZERS

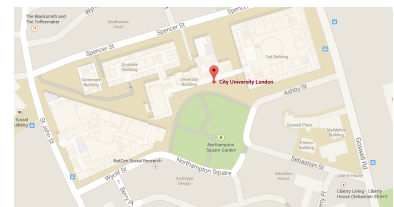
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Google map.



City University Building map.

