THE UNIVERSITY OF MELBOURNE

Mechanical Engineering

SEMINAR SERIES 2008

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James Hardie Theatre, Level 2, Architecture Building, Bldg 133

Developments in turbulent pipe flow.

Fluid flow through straight, circular pipes has been the topic of scientific investigation for over 200 years. It is arguably the simplest of wall-bounded turbulent fluid flows and so research in this area remains key to the goal of understanding turbulence at a solid-fluid interface. In fact, the discovery of turbulence generated by friction between fluid and a boundary was first discovered in a pipe flow apparatus by Osborne Reynolds, over 100 years ago. Despite the enormous collection of data in pipes since the work of Reynolds, there are fundamental questions that have been surprisingly neglected over 100 years of study. Two of these questions will be answered in this presentation: how far downstream does the flow in the pipe become "fully developed" and; does the classical view that boundary layer, pipe and channel flows are equivalent in some region of the flow still hold?

MORE INFORMATION

For more Mechanical Engineering seminar information contact:

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