

## FDRG Seminar

# On the growth of wavepackets in an oscillatory Stokes layer

presented by

**Dr Christopher Davies**

Reader in Applied Mathematics,  
Cardiff University

We shall describe the impulse response for the Stokes layer that forms in an incompressible fluid above a flat plate, when the plate oscillates periodically within its own plane. The disturbance behaviour is intriguingly complex and exhibits a family-tree like spatial-temporal structure. Successive generations of wavepackets are created, instead of just a single wavepacket, as would usually be the case for a steady boundary layer. We will also illustrate the nonlinear development found within an individual wavepacket component of the disturbance. It will be seen that there is a strong resemblance with the spiking behaviour that has been documented, previously, for finite amplitude TS waves evolving in steady flow.

Date: Friday 11<sup>th</sup> July  
Time: 4pm – 5pm  
Location: 216:207  
Curtin University, Bentley Campus

No RSVP required. For queries please email:  
[fdrg@curtin.edu.au](mailto:fdrg@curtin.edu.au)