



## ICTS Seminar

Title : Hydrodynamic Stability: Symmetries and Bifurcations

Speaker : Balachandra Suri (Institute of Science and Technology, Austria)

Date : 11th March 2021

Time : 04:00 pm

Abstract : Laminar fluid flows in regular geometries display certain spatial symmetries (e.g., flow between two concentric counter-rotating cylinders is axisymmetric). When such flows become unstable to small perturbations, spatially "asymmetric" secondary solutions are (typically) observed in both experiments and numerics. In this talk, we discuss symmetries and bifurcations of laminar flows in an electromagnetically driven shallow fluid layer, by computing equilibrium solutions to the governing equation and analyzing their linear stability. We also show (using numerics) that modifying the symmetries of the laminar solution can alter the nature (sub/supercritical) of transition to a (steady/time-periodic) secondary solution.

Venue : Please click on the link to join the seminar

<https://zoom.us/j/94080920833?pwd=MldtTDN1K0NFUEVOM05aK1pIL3k3UT09>

Meeting ID: 940 8092 0833

Passcode: 788069