香港浸會大學
HONG KONG BAPTIST UNIVERSITY

HKBU MATH SINCE 1970 45 YEARS

Department of Mathematics
Hong Kong Baptist University

HKBU MATH 45th Anniversary Distinguished Lecture

Symmetry Breaking and Hopf Bifurcation for Incompressible Viscous Flow in a Symmetric Planar Expansion Channel

Professor Roland Glowinski

University Distinguished Professor, Hong Kong Baptist University
Cullen Professor of Mathematics, University of Houston
Member of the French National Academy of Sciences
SIAM Fellow
Member of Academia Europaea
SIAM Von Karman Prize
CFD Award of the American Association for Computational Mechanics
Emeritus Professor, University P. & M. Curie, Paris, France
Honorary Professor, Fudan University, Shanghai

Date: 21 December 2015 (Monday)

Time: 11:00 am - 12:00 noon (Preceded by Reception at 10:30 am)

Venue: RRS905, Sir Run Run Shaw Building,
Ho Sin Hang Campus, Hong Kong Baptist University

Abstract

The main goal of this lecture is to report on some computational investigations concerning symmetry breaking and Hopf bifurcation phenomena for Newtonian incompressible viscous flow in symmetric planar expansion channels as the flow Reynolds number increases (we assume that the channel flow is modelled by the Navier-Stokes equations). A particular attention will be given to the influence of mesh refinement on those critical values of the Reynolds number where symmetry breaking and Hopf bifurcation take place.

✦✦✦ All are welcome ✦✦✦

For enquires please contact Ms. Claudia Chui, 3411 2348.
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