About the speaker:

Professor Roland Glowinski is a professor of mathematics and mechanical engineering at the University of Houston. He has been awarded the Seymour Cray Prize in France in 1988, the Grand Prix Marcel Dassault of the French National Academy of Sciences in 1996, and the SIAM Von Kˆhrmˆhn Prize ion 2004. Professor Glowinski is an honorary doctor of the University of Jyvaskyla in Finland and a member of the French National Academy of Sciences, the French National Academy of Technology and the Academia Europaea. His scientific interests include computational fluid dynamics, non-smooth mechanics, the control of distributed parameter systems, large scale optimization and the computational aspects of the calculus of variations, and more recently, computational methods for fully nonlinear elliptic equations such as Monge-Ampˆjre's, Pucci's etc.

Professor Roland Glowinski

Cullen Professor of Mathematics and Mechanical Engineering
University of Houston

Date: October 9 (Tuesday)
Time: 4:30 - 5:30 pm
Venue: Ben C. M. Wong Technology Education Theater
           (Room 6580, 6/F, Lifts 27-28)

Abstract:

Very often, complex non-equilibrium systems have a tendency to self-organize into relatively simple patterns. The main goal of this presentation is to investigate numerically a particular example of such situations that we consider particularly relevant to a conference dedicated to Recent Developments of Numerical Schemes for Flow Problems. The problem that we consider is the numerical simulation of those particle clustering phenomena taking place in a spinning cylinder containing an incompressible viscous fluid / rigid particle mixture when the angular spinning velocity is sufficiently large. The results of a series of numerical experiments will be presented; they validate documented experimental results.