International Conference on Multiscale Modeling and Scientific Computing

June 10-12, 2005
Peking University, P.R. China

Conference Hall: Overseas Exchange Center

**June 9th**

**Registration**
Shao Yuan Hotel (lobby, Building 7)

**June 10th**

09:00-09:15  Shiyi Chen
Welcome Speech

09:15-09:30  Photo

09:30-10:00  Chair: Tom Hou
Zhong-ci Shi

Numerical Methods for Reissner-Mindlin Plates

10:00-10:30  Xiaoping Wang
TBA

10:30-11:00  Break

11:00-11:30  Tao Tang
On large time-stepping methods for epitaxial growth models

11:30-12:00  Jinchao Xu
TBA

12:00-14:00  Lunch
Nong Yuan Restaurant

**14:00-**

Chair: Zhong-ci Shi

14:00-14:30  Tony Chan
Total Variation Regularized L1 Function Approximation: New Theory and Applications

14:30-15:00  Hongkai Zhao
Fast sweeping method on unstructured meshes

15:00-15:30  Haomin Zhou
TBA

15:30-16:00  Break
16:00-     Chair: Pingwen Zhang
16:00-16:30   Chi-Wang Shu
   The Heterogeneous Multi-Scale Method Based on the Discontinuous Galerkin and the Finite Volume Methods for Hyperbolic Problems
16:30-17:00   Tom Hou
   Multiscale Analysis and Computation of 3D Incompressible Flow
17:00-17:30   Jianguo Liu
   Large Divorcing pressure from viscosity in incompressible Navier-Stokes dynamics
18:00     Dinner       Shao Yuan Restaurant

June 11th
08:30-     Chair: Zhouping Xin
08:30-09:00   Tatsien Li       TBA
09:00-09:30   Pingwen Zhang
   The structure and stability of stationary solutions of Doi-Onsager Equation
09:30-10:00   Qiang Du
   Closure approximations of some multiscale models for polymeric fluids
10:00-10:30   Break

10:30-     Chair: Tao Tang
10:30-11:00   Zhouping Xin       TBA
11:00-11:30   Weinan E
   Mathematical models of complex fluid
11:30-12:00   Zhilin Li
   An Augmented Approach for Stokes Equations with a Discontinuous Viscosity and Singular Forces
12:00-14:00   Lunch
14:00-     Chair: Qiang Du
14:00-14:30   Eitan Tadmor
   Edge detection and hierarchical decompositions
14:30-15:00   Ulf Andersson
   The General ElectroMagnetic Solvers project and photonic integrated circuits
15:00-15:30   Wei Cai
   A Modified Dyson Equation Method for Nonequilibrium Green's Function Methods
   in Electron Transport in Nanotransistors
15:30-16:00   Break

16:00-     Chair: Xiaoping Wang
16:00-16:30   Olof Runborg TBA
16:30-17:00   Zhiming Chen TBA
17:00-17:30   David Kan
   Trends in Commercial Multiphysics Modeling Software
18:00     Banquet

**June 12th**

08:30-     Chair: Hongkai Zhao
08:30-09:00    Stanley Osher
   Bregman iteration and the dual of BV in inverse problems in imaging and Elsewhere
09:00-09:30   Anna-Karin Tornberg
   Numerical approximations of singular source terms in differential equations
09:30-10:00   Li-Tien Cheng
   A Level Set Method for Constructing Wavefronts on Surfaces
10:00-10:30   Richard Tsai
   Threshold dynamics and its applications to image processing
10:30-11:00   Break
11:00-     Chair: Weinan E
11:00-12:00   Bjorn Engquist

12:00     Lunch       Nong Yuan Restaurant