

23 - 27  
JULY  
2012  
TAIWAN



INTERNATIONAL CONFERENCE FOR MESOSCOPIC METHODS IN ENGINEERING AND SCIENCE

**ICMMES 2012 CONFERENCE**

ICMMES brings together researchers and practitioners in various engineering and scientific fields to focus on the emerging methods based on mesoscopic theory. Notable examples include the Lattice Gas Cellular Automata (LGCA), the Lattice Boltzmann Equation (LBE), the Discrete Velocity Models (DVM), the Gas-Kinetic Scheme (GKS), and the Smoothed Particle Hydrodynamics (SPH).

**VENUE**

The ninth international Conference for Mesoscopic Methods in Engineering and Science (ICMMES 2012) will be held at the National Taiwan University (NTU) in Taipei, Taiwan. Set upon 1,086,167 square meters in Taipei's Da'an district, NTU is Taiwan's most prestigious university.

**SCOPE**

ICMMES 2012 is devoted to all innovations on mesoscopic/kinetic methods for computational mechanics. Specific application areas of mesoscopic/kinetic methods include, but are not limited to:

- Computational Fluid Dynamics (CFD), including Direct Numerical Simulations (DNS), Large-Eddy Simulations (LES), and turbulence based on kinetic approach;
- Rheology for complex fluids, such as suspensions, multi-phase and multi-component fluids, non-Newtonian fluids, smart fluids such as electro-rheological (ER) and magneto-rheological (MR) fluids;
- Biologic-fluids, Lab on a Chip systems, and microfluidics;
- Micro/nano-scale phenomena involving non-continuum, surface-dominated, low-Reynolds-number, non-Newtonian, multi-scale and multi-physics effects;
- Thermal-chemically nonequilibrium flows with Mach-number and/or Knudsen-number effects, and reactive flows;
- Computational mechanics of solids and structures;
- Computational multi-physics dynamics, such as flow-structure interactions;
- Computational mathematics and algorithms for High Performance Computing (HPC) and tailored for challenging applications;
- Novel computational hardware for large-scale scientific computing including GP-GPUs, FPGAs, etc.

**IMPORTANT DATES**

- Submission of Abstracts\* ..... Apr 2, 2012
- Notification of Acceptance ..... Apr 20, 2012
- Early Registration ..... Apr 2, 2012
- Regular Registration ..... Jun 18, 2012

\* The format of abstracts MUST be PLAIN TEXT. No other format will be accepted

**CONFERENCE CHAIRPERSONS**

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We invite you to submit an abstract by following the directions for submission, which can be found by visiting <http://www.icmmes.org/>

The ICMMES-2012 proceedings will be published as a special issue of: **Computers and Mathematics with Applications (CAMWA)**



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