

Workshop on Numerical Methods for Complex Fluid Flows and
its Applications to Natural Hazards

October 16, 2008

New Mathematics Building 308
National Taiwan University

Sponsors:

National Center for Theoretical Sciences (Taipei office), National Science Council, Taiwan
Department of Civil Engineering, National Chi Nan University, Taiwan

Session Chair: Keh-Ming Shyue (National Taiwan Univ.)

10:00-10:50 Boniface Nkonga (Univ. of Bordeaux 1, France)

Relaxation scheme for low Mach two-phase flow problems ([pdf file](#))

Session Chair: Yang-Yao Niu (Chung-Hua Univ.)

11:00-11:50 Dartzi Pan (National Cheng Kung Univ.)

*Computation of incompressible flows over immersed bodies on
Cartesian grids* ([pdf file](#))

12:00-14:00 Lunch

Session Chair: Boniface Nkonga (Univ. of Bordeaux 1, France)

14:00-14:50 Mario Ricchiuto (INRIA, France)

High order nonlinear residual distribution schemes ([pdf file](#))

Session Chair: Chih-Yu Kuo (Academia Sinica)

15:00-15:50 Jihn-Sung Lai (National Taiwan Univ.)

*Developments and applications of the finite-volume TVD schemes for
2D shallow water equations* ([pdf file](#))

15:50-16:10 Tea break

Session Chair: Yih-Chin Tai (National Chi Nan Univ.)

16:10-17:00 Ioana Luca (Academia Sinica)

*Modelling shallow gravity-driven solid-fluid mixtures over
arbitrary topography* ([pdf file](#))

17:10-18:00 Roundtable discussions