

Joint Conference of AMS and HKMS
Special Session "Theoretical and Numerical
Aspects of Nonlinear Conservation Laws"

Organizers: Tao Tang and Zhouping Xin

On December 13 (Wednesday)

On contact overheating and other computational difficulties of shock-capturing methods

Grafton Hui
HKUST
Time: 2:00-2:30pm

Convergence theory for relaxation schemes

Gerald Warnecke
Magdeberg, Germany
Time: 2:30-3:00pm

Critical thresholds phenomena in a class of Euler-Poisson equations of fluid dynamics and plasma physics

Hailiang Liu
UCLA
Time: 3:00-3:30pm

Tea Break

Multi-phase flow with reaction

Hideo Kawarada
Chiba University
Time: 3:45-4:15pm

Quasi-least-squares mixed finite element scheme based on a discrete minus one inner project for steady flow with heat transfer

Danping Yang
Shandong University
Time: 4:15-4:45pm

Nonlinear Schroedinger equations and conservation laws

Peter Pang
National University of Singapore
Time: 4:45-5:15pm

On December 14 (Thursday)

An Explicit divergence-free upwindig method for the MHD-equations

Rolf Jeltsch

ETH Zurich

Time: 11:15-11:45am

Gas-kinetic schemes for flow simulations

Kun Xu

HKUST

Time: 11:45-12:15pm

Wave interactions in nonlinear elastic strings

Robin Young

University of Massachusetts, Amherst

Time: 2:00-2:30pm

Long time behaviors of solutions of relaxation hyperbolic systems with non-equilibrium far-field states

I-Liang Chern

National Taiwan University

Time: 2:30-3:00pm

Construction of Shock Profiles

S.-H. Yu

City University of Hong Kong

Time: 3:00-3:30pm

Tea Break

Some recent results on compressible flow with vacuum

Tong Yang

City University of Hong Kong

Time: 3:45-4:15pm

Energy and helicity preserving schemes for hydrodynamic and magnetohydrodynamic flows with coordinate symmetry

Weicheng Wang

National Tsinghua University

Time: 4:15-4:45pm

New nonstaggered, nonoscillatory, high resolution central schemes for conservation laws

Chi-Tien Lin

Providence University, Taiwan

Time: 4:45-5:15pm

On December 15 (Friday)

Finite volume WENO schemes and the treatment of negative weights

Chi-Wang Shu

Brown University

Time: 11:15-11:45am

Moving mesh method based on harmonic maps and its application to hyperbolic conservation laws

T. Tang

Hong Kong Baptist University

Time: 11:45-12:15pm