

# Japan-Taiwan Joint Workshop on Numerical Analysis and Scientific Computation 2014

Apr. 5 : Coop-Inn Kyoto, Conference Room 204

Apr. 6 : Clock Tower of Kyoto University, Conference Room III

## April 5 (Sat.)

- 9:30–10:00 Registration
- 10:00–10:10 Opening Address  
Y. Iso and J. H. Lee
- 10:10–11:00 **Plenary Talk**  
Tai-Ping Liu (Academia Sinica)  
Green's Function Approach for the Kinetic Theory and Gas Dynamics
- 11:10–12:00 **Plenary Talk**  
Takayuki Kitamura (Kyoto University)  
Fracture in Nanometer Scale
- 13:30–14:00 Ming-Chih Lai (National Chiao Tung University)  
Vesicle Dynamics Simulations by Immersed Boundary Method
- 14:00–14:30 Takashi Sakajo (Kyoto University)  
Mathematical and Computational Theory for Inviscid and Incompressible Flows in Multiply Connected Domains
- 14:40–15:10 Hitoshi Yoshikawa (Kyoto University)  
Time Domain BIEM for Evaluation of Road Traffic Noise
- 15:10–15:40 Jeng-Tzong Chen (National Taiwan Ocean University)  
On the Sufficient and Necessary BIEs
- 15:50–16:20 Tsung-Lin Lee (National Sun Yat-sen University)  
Mixed Cell Enumeration in Solving Polynomial Systems
- 16:20–16:50 Yin-Tzer Shih (National Chung Hsing University)  
Tailored Finite Point Method for Numerical Solutions of Singular Perturbed Eigenvalue Problems
- 17:00–17:30 Satoshi Taguchi (The University of Electro-Communications)  
On the Drag Exerted on the Sphere by a Slow Uniform Flow of a Rarefied Gas

17:30–18:00 Chia-Chieh Chu (National Tsing Hua University)  
A Multiscale Method Coupling Network and Continuum Models in Porous Media

**April 6 (Sun.)**

- 10:00–10:30 Chieh-Sen Huang (National Sun Yat-sen University)  
Recent Progress on Eulerian-Lagrangian Schemes for Nonlinear Transport Problems
- 10:30–10:50 Hiroshi Fujiwara (Kyoto University)  
Fast and Reliable Computation of the Three Dimensional Radiative Transport Equation
- 11:00–11:30 I-Liang Chern (National Chiao Tung University)  
On Ground States of Spin-1 Bose-Einstein Condensates w/o External Magnetic Field
- 11:30–12:00 Toshiyuki Awaji (Kyoto University)  
Japan Task Force for the 2011 Tsunami Debris Simulation  
Group Photo
- 13:30–14:00 Norikazu Saito (The University of Tokyo)  
Numerical Blow-Up Results for Nonlinear Wave Equations
- 14:00–14:30 Weichung Wang (National Taiwan University)  
Optimizing Photonic Crystals Structures
- 14:40–15:10 Masato Kimura (Kanazawa University)  
A Fracture Model on Spring-Block System
- 15:10–15:40 Tzyy-Leng Horng (Feng Chia University)  
Numerical Investigation of Freely Falling Objects Using Direct-Forcing Immersed Boundary Method
- 15:50–16:10 Kazuki Niino (Kyoto University)  
On Discretisation Methods with the  $H_{\text{div}}$  Scalar Product for Boundary Element Methods for the Maxwell Equations
- 16:10–16:30 Chien-Hong Cho (National Chung Cheng University)  
On the Finite Difference Approximation for Blow-Up Solutions of the Semi-Linear Wave Equation
- 16:30–16:50 Yuusuke Iso (Kyoto University)  
Does the CFL Condition Guarantee the Stability of Numerical Results?
- 16:50–17:00 Closing Address  
I-L. Chern and H. Fujiwara

05/April (Sat.) Conference Room @ Coop-Inn Kyoto		06/April (Sun.) Conference Room @ Kyoto University	
9:30–10:00	Registration		
10:00–10:10	Opening Address Y. Iso, J. H. Lee		
10:10–11:00	T. P. Liu (Chair: T. Nishida)	10:00–10:30 10:30–10:50	(Chair: J. H. Lee) C. S. Huang H. Fujiwara
11:10–12:00	T. Kitamura (Chair: I-L. Chern)	11:00–11:30 11:30–12:00	(Chair: W. Wang) I-L. Chern T. Awaji
			Group Photo
13:30–14:00 14:00–14:30	(Chair: C. S. Huang) M. C. Lai T. Sakajo	13:30–14:00 14:00–14:30	(Chair: J. T. Chen) N. Saito W. Wang
14:40–15:10 15:10–15:40	(Chair: N. Nishimura) H. Yoshikawa J. T. Chen	14:40–15:10 15:10–15:40	(Chair: T. Sakajo) M. Kimura T. L. Horng
15:50–16:20 16:20–16:50	(Chair: N. Saito) T. L. Lee Y. T. Shih	15:50–16:10 16:10–16:30	(Chair: M. Kimura) K. Niino C. H. Cho
17:00–17:30 17:30–18:00	(Chair: K. Tomoeda) S. Taguchi C. C. Chu	16:30–16:50 16:50–17:00	Y. Iso Closing Address I-L.Chern, H. Fujiwara
18:30–	Banquet @ Coop-Inn Kyoto		

Organizers I-Liang Chern (National Chiao Tung University, Taiwan)  
 Jyh-Hao Lee (Institute of Mathematics, Academia Sinica, Taiwan)  
 Chieh-Sen Huang (National Sun Yat-sen University, Taiwan)  
 Yuusuke Iso (Kyoto University, Japan)  
 Hitoshi Imai (The University of Tokushima, Japan)  
 Hiroshi Fujiwara (Kyoto University, Japan)

The workshop is partially supported by Grant-in-Aid for Scientific Research (B) (No.25287028), Japan Society for the Promotion of Science.

List of Participants

Jeng-Tzong Chen (National Taiwan Ocean University)	陳正宗 (國立臺灣海洋大學)
I-Liang Chern (National Chiao Tung University)	陳宜良 (國立交通大學)
Chien-Hong Cho (National Chung Cheng University)	卓建宏 (國立中正大學)
Chia-Chieh Chu (National Tsing Hua University)	朱家杰 (國立清華大學)
Tzyy-Leng Horng (Feng Chia University)	洪子倫 (逢甲大學)
Chieh-Sen Huang (National Sun Yat-sen University)	黃杰森 (國立中山大學)
Ming-Chih Lai (National Chiao Tung University)	賴明治 (國立交通大學)
Jyh-Hao Lee (Academia Sinica)	李志豪 (中央研究院)
Tsung-Lin Lee (National Sun Yat-sen University)	李宗鏐 (國立中山大學)
Tai-Ping Liu (Academia Sinica)	劉太平 (中央研究院)
Yin-Tzer Shih (National Chung Hsing University)	施因澤 (國立中興大學)
Weichung Wang (National Taiwan University)	王偉仲 (國立臺灣大學)
Toshiyuki Awaji (Kyoto University)	淡路敏之 (京都大学)
Hiroshi Fujiwara (Kyoto University)	藤原宏志 (京都大学)
Hitoshi Imai (Tokushima University)	今井仁司 (徳島大学)
Yuusuke Iso (Kyoto University)	磯祐介 (京都大学)
Daisuke Kawagoe (Kyoto University)	川越大輔 (京都大学)
Masato Kimura (Kanazawa University)	木村正人 (金沢大学)
Takayuki Kitamura (Kyoto University)	北村隆行 (京都大学)
Masayasu Mimura (Meiji University)	三村昌泰 (明治大学)
Kazuki Niino (Kyoto University)	新納和樹 (京都大学)
Takaaki Nishida (Kyoto University)	西田孝明 (京都大学)
Naoshi Nishimura (Kyoto University)	西村直志 (京都大学)
Hisashi Okamoto (Kyoto University)	岡本久 (京都大学)
Norikazu Saito (The University of Tokyo)	齊藤宣一 (東京大学)
Takashi Sakajo (Kyoto University)	坂上貴之 (京都大学)
Satoshi Taguchi (The University of Electro-Communications)	田口智清 (電気通信大学)
Kenji Tomoeda (Osaka Institute of Technology)	友枝謙二 (大阪工業大学)
Hitoshi Yoshikawa (Kyoto University)	吉川仁 (京都大学)