

# Program

## August 25<sup>th</sup> (Room 204)

9:10—9:45 Shi Zhong-ci, Studies On Wilson Nonconforming Finite Element

9:45—10:20 Youngmok Jeon, A locally conservative multiscale method for elliptic problems with oscillating coefficients

---coffee break---

10:30—11:05 Nobito Yamamoto, Numerical verification of closed orbits in dynamical systems

11:05—11:40 Seungil Kim, Complete radiation boundary conditions for of the convected Helmholtz equation with a uniform mean flow in a waveguide

11:40—11:50 Hisashi Okamoto, Chien-Hong Cho, (Title: To be announced)

11:50—12:00 Ceremony

---lunch---

13:30—14:05 Takashi Sakajo, Point vortex dynamics in multiply connected domains---theory and applications

14:05—14:40 Hiroshi Suito, Vortical flow related to aortic aneurysms

14:40—15:15 Jeongwhan Choi, Subcritical surface waves over an obstruction

---coffee break---

### Short communications

15:45—16:00 Takehiko Kinoshita, A numerical verification method of solutions for initial value problems of nonlinear ODEs

16:00—16:15 Tomoyuki Miyaji, A Taylor model method for verified numerical computation of Poincare map

16:15—16:30 Takahito Kashiwabara, Finite element approximation for Stokes equations under slip or leak boundary conditions of friction type

---coffee break---

- 16:45—17:00 Guanyu Zhou, The fictitious domain method with penalty for parabolic problems
- 17:00—17:15 Xuefeng Liu, On the high precision eigenvalue evaluation of differential operator and its application
- 17:15—17:30 Norikazu Saito, Discrete extinction phenomenon in fast diffusion equations

## Reception at Hotel Piazza 18:30—20:30

### August 26<sup>th</sup> (Room 207)

- 9:10—9:45 Hiroshi Kanayama, Tsunami computation using the viscous shallow-water equations
- 9:45—10:20 HongXing Rui, Numerical methods for some coupled flow model in porous media
- coffee break---
- 10:30—11:05 Chungjae Park, Divergence-free P<sub>1</sub>-nonconforming space on square grids
- 11:05—11:40 Kwang-Yeon Kim, Flux reconstruction for low-order nonconforming finite element methods
- 11:40—12:00 Dongwoo Sheen, New aspects on quadrilateral nonconforming elements
- lunch---
- 13:30—14:05 Zhong-Zhi Bai, Nearly optimal block preconditioners for saddle point linear systems
- 14:05—14:40 Bing Zheng, Congruence solutions of some matrix equations
- 14:40—15:15 Tomohiro Sogabe, Numerical methods for generalized shifted linear systems with complex symmetric matrices
- coffee break---

Short communications

15:45—16:00 Dongjin Lee, On intermediate eigenvalue problems in computational materials science

16:00—16:15 Takafumi Miyata, Jacobi-Davidson type methods using an invariance of Krylov subspaces for eigenvalue problems

16:15—16:30 Yu-Mei Huang, On decomposition-based block preconditioned iterative methods for half-quadratic image restoration

---coffee break---

16:45—17:00 Zhi-Ru Ren, On preconditioned iterative methods for Sinc systems of linear third-order ODEs

17:00—17:15 Li Wang, On convergence of MSOR-Newton method for nonsmooth equations

17:15—17:30 Li Deng,

## August 27<sup>th</sup> (Room 207)

9:10—9:45 Jin Cheng, Regularization and Inverse Problems for PDE

9:45—10:20 June-Yub Lee, A direct integral equation method for quasi-periodic scattering problems with multiple material interfaces

---coffee break----

10:30—11:05 Karel Svadlenka, A numerical scheme for constrained motion of multiple interfaces

11:05—11:40 Zhi-jian Yang, Multi-scale modeling and simulation of crystalline solids

11:40—12:00 Craig Douglas, Isogeometric multigrid methods and their practicality

---lunch---

13:30—14:05 Takayasu Matsuo, Stabilizing linearly-implicit schemes for dissipative equations

14:05—14:40 Do Wan Kim, Impinging wall jet with the symmetric nozzle of arbitrary shape

14:40—15:15 Jin-ru Chen, A BDDC algorithm for the mortar-type rotated Q1 FEM for elliptic problems with discontinuous coefficients

August 28th

Excursion, Hieizan, Hikone, or Biwako Cruise