

Monday, December 15, 2008

Opening Remarks and Group photo 8:00 - 8:30

Chair: Zhong-Ci Shi

Talks

Chair: Zhong-Ci Shi

Weinan E 8:30 - 9:00

Title: *Localized Basis of Eigen-Subspaces and Operator Compression*

Arieh Iserles 9:00 - 9:30

Title: *From asymptotics to numerics of highly oscillatory integrals*

Habib Ammari 9:30 - 10:00

Title: *The Method of Small-Volume Expansions in Emerging Biomedical Imaging*

Tea Break 10:00 - 10:20

Chair: Arieh Iserles

Zuowei Shen 10:20 - 10:50

Title: *Sparsity, Redundancy and Algorithm*

Zhaojun Bai 10:50 - 11:20

Title: *Progress in Linear and Nonlinear Algebraic Eigensolvers*

Carsten Carstensen 11:20 - 11:50

Title: *Convergence of Adaptive Finite Element Methods in 3 Nonlinear Problems*

Lunch break 11:50 - 13:40

Talks

Chair: Weinan E

Chi-Wang Shu 13:40 - 14:10

Title: *Superconvergence and Time Evolution of Discontinuous Galerkin Finite Element Solutions*

Xiaobing Feng 14:10 - 14:40

Title: *Recent Developments in Numerical Methods for Fully Nonlinear Second Order PDEs*

Pingwen Zhang 14:40 - 15:10

Title: *Nucleation and Boundary Layer in Diblock Copolymer SCFT Model*

Ya-Yan Lu 15:10 - 15:40

Title: *Scattering from Hole Arrays in a Slab*

Tea Break 15:40 - 16:00

Chair: Tao Tang

Benyu Guo 16:00 - 16:30

Title: *Legendre-Gauss Collocation Method for Initial Value Problems of Second Order Ordinary Differential Equations*

Assyr Abdulle 16:30 - 17:00

Title: *Numerical Methods for Stiff and Multiscale Time Dependent Problems: Stability Versus Averaging*

Zhong-Zhi Bai 17:00 - 17:30

Title: *Vectorized Iteration Methods for Algebraic Riccati Equations from Transport Theory*

Dinner 18:00 - 20:00

Presentation by the JCM Best Paper Award Winner 20:00

Tuesday, December 16, 2008

Talks

Chair: Gang Bao

Yinyu Ye 8:30 - 9:00

Title: *A Unified Theorem on Semidefinite Programming Rank Reduction and its Applications*

Yin Zhang 9:00- 9:30

Title: *Acquiring less data without losing content: Compressive Sensing Theory and Algorithms*

Wenbin Liu 9:30 - 10:00

Title: *Optimal Control in Water Flooding of Oil Production*

Tea Break 10:00 - 10:20

Chair: Chi-Wang Shu

Ronald Hoppe 10:20 - 10:50

Title: *Modeling, Simulation and Optimization of Surface Acoustic Wave Driven Microfluidic Biochips*

Dongwoo Sheen 10:50 - 11:20

Title: *Application of the SECB Constraint to Image Deblurring Problems*

Hongkai Zhao 11:20 - 11:50

Title: *A Fast Forward Solver for Radiative Transfer Equation with Applications in Optical Imaging*

Shi Jin 11:50 - 12:20

Title: *An Eulerian Gaussian Beam Method for High Frequency Waves*

Lunch break 12:20 - 13:40

Talks

Chair: Pingwen Zhang

Zhimin Zhang 13:40 - 14:10

Title: *High Accuracy Eigenvalue Approximations*

Thomas Y. Zhao Hou 14:10 - 14:40

Title: *Removing the Stiffness of Elastic Force from the Immersed Boundary Method*

Tea Break 14:40 - 15:00

JCM Board Meeting 15:00 - 17:30

Banquet 18:00 - 20:00

Wednesday, December 17, 2008

Sightseeing