Tuesday, October 9, 2007

Opening Ceremony  09:00 - 09:35

Talks
Chair:  Xuejun Xu
Rolf Rannacher  09:35 - 10:10
Title:  Adaptive FE Eigenvalue Computation with Applications to Hydrodynamic Stability
Zhiming Chen  10:10 - 10:45
Title:  Stability and Convergence of the Time-Domain Perfectly Matched Layer Method for Acoustic Scattering Problems

Tea Break  10:45 - 11:20

Chair:  Tao Tang
Benyu Guo  11:20 - 11:55
Title:  Spectral and Pseudospectral Methods for Exterior Problems
Ronald Hoppe  11:55 - 12:30
Title:  A Posteriori Error Estimation of Finite Element Approximations of Pointwise State Constrained Distributed Control Problems

Lunch  12:30 - 14:00

Talks
Chair:  Pingwen Zhang
Ziqing Xie  14:00 - 14:35
Title:  Superconvergence of DG Methods for Singularly Perturbed Problems
Reinhold Schneider  14:35 - 15:10
Title:  Exponential Parametrization and Linear Scaling Density Functional Theory in BigDFT
Jianxian Qiu  15:10 - 15:45
Title:  WENO Limiters for Discontinuous Galerkin Methods

Tea Break  15:45 - 16:15

Chair:  Chuanmiao Chen
Yanping Chen  16:15 - 16:50
Title:  Spectral Methods for Volterra Integral Equations with Weakly Singular Kernels
Malte Braack  16:50 - 17:25
Title:  Finite Elements for Flow Problems on Anisotropic Meshes
Xiaoping Xie  17:25 - 18:00
Title:  Uniformly Stable Finite Element Methods for Darcy-Stokes Interface Problems
Wednesday, October 10, 2007

Talks

Chair: Ronald Hoppe
Soeren Bartels 09:00 - 09:35
Title: Harmonic Maps Between Surfaces: Iterative Computation and Convergence
Tao Tang 09:35 - 10:10
Title: Spectral Methods for Volterra Integral Equations and Delay Equations
Ernst Peter Stephan 10:10 - 10:45
Title: The hp-version of BEM - Fast Convergence and Efficient Preconditioning

Tea Break 10:45 - 11:20

Chair: Benyu Guo
Pingwen Zhang 11:20 - 11:55
Title: Dynamical Modeling Based on Energy Dissipation
Georg Bock 11:55 - 12:30
Title: A Reduced SQP Method for the Shape Optimization of Turbine and Compressor Blades

Lunch 12:30 - 14:00

City Tour
Thursday, October 11, 2007

Talks
Chair: Carsten Carstensen
Danping Yang 09:00 - 09:35
Title: Multi-scale Analysis of Incompressible Fluid Flow
Michael Hinze 09:35 - 10:10
Title: Optimal Discrete Concepts in PDE Constrained Optimization
Aihui Zhou 10:10 - 10:45
Title: Multi-scale Finite Element Eigenvalue Discretizations

Tea Break 10:45 - 11:20

Chair: Xiaoping Wang
Pingbing Ming 11:20 - 11:55
Title: Generalized Peierls-Nabarro Models for Curved Islocations
Dietmar Kröner 11:55 - 12:30
Title: Numerics for Hyperbolic and Convection Dominated Problems and Applications

Lunch 12:30 - 14:00

Talks
Chair: Danfu Han
Dongyang Shi 14:00 - 14:35
Title: Nonconforming Finite Element Analysis For Maxwell's Equations
Stefan Funken 14:35 - 15:10
Title: On the Adaptive Coupling of Finite Volume Method and Boundary Element Method for Convective Interface Problems
Xuejun Xu 15:10 - 15:45
Title: A Robin-type Nonoverlapping Domain Decomposition Method for Parabolic Problems

Tea Break 15:45 - 16:15

Chair: Ernst Peter Stephan
Chuanju Xu 16:15 - 16:50
Title: Legendre-Laguerre Spectral Methods for the Stokes Problem in Unbounded Domains
Vincent Heuveline 16:50 - 17:25
Title: High performance computing for constrained optimization: Application to optimal design of a racing yacht in the America's Cup

Banquet
Friday, October 12, 2007

Talks
Chair: Rolf Rannacher
Sergej Rjasanow 09:00 - 09:35
Title: Stochastic Numerics for the Boltzmann Equation
Xiaoping Wang 09:35 - 10:10
Title: Mathematical and Numerical Issues of Moving Contact Line on Chemically Patterned Surfaces
Carsten Carstensen 10:10 - 10:45
Title: A Posteriori Error Analysis for Nonstandard Finite Element Methods

Tea Break 10:45 - 11:20

Chair: Jin Cheng
H-G. Roos 11:20 - 11:55
Title: Stabilisation Methods for Convection-diffusion Problems on Layer Adapted Meshes with Special Emphasis on Supercloseness and Solution Recovery
Ningning Yan 11:55 - 12:30
Title: Numerical Simulation for Optimal Control Problem Governed by Convection diffusion equations

Lunch 12:30 - 14:00

Talks
Chair: H-G. Roos
Yunqing Huang 14:00 - 14:35
Title: Superconvergence and Adaptivity of Finite Element Methods
Jialin Zhu 14:35 - 15:10
Title: Meshless Collocation Method Based on Radial Basis Functions for Inhomogeneous Biharmonic-type Problems
Andreas Prohl 15:10 - 15:45
Title: Pressure Approximation via Projection Methods for the Incompressible Navier-Stokes Equations

Tea Break 15:45 - 16:15

Chair: Yunqing Huang
Danfu Han 16:15 - 16:50
Title: High Order Spline method with Arbitrary Level Hanging Nodes
Ekkehard Sachs 16:50 - 17:25
Title: Optimization and Reduced Order Models in Fluid Flow Problems
Jun Hu 17:25 - 18:00
Title: Convergence of Adaptive Finite Element Methods for the Stokes and Nearly Incompressible Elasticity Problems
Saturday, October 13, 2007

Talks

Chair: Jialin Zhu

Dehao Yu 09:35 - 10:10

Title: Artificial Boundary and Domain Decomposition Method for Some Problems in Unbounded Domains

Ruo Li 10:10 - 10:45

Title: An Efficient Moving Mesh Method with Application to Phase Field Problems

Tea Break 10:45 - 11:20

Chair: Zhiming Chen

Jin Cheng 11:20 - 11:55

Title: An Industrial Inverse Problem for Heat Equation

Chuanmiao Chen 11:55 - 12:30

Title: Study of Finite Element for Nonlinear Hamilton System

Lunch

Departure