

Program of Workshop on FEM

Saturday, August 8, 2015

Saturday, August 8, 2015	
08:45 am - 09:00 am	Opening Ceremony
Session 1	
09:00 am - 09:25 am	Zhonghua Qiao <i>Error Analysis of a Mixed Finite Element Method for The Molecular Beam Epitaxy Model</i>
09:25 am - 09:50 am	Hengguang Li <i>Finite Element Approximations of Singular Solutions in the W_p^1 Norm</i>
09:50 am - 10:15 am	Xingfeng Liu <i>Compact Implicit Integration Factor Method for High Order Differential Equations</i>
Break	
Session 2	
10:30 am - 10:55 am	James Adler <i>Numerical Approximation of Asymptotically Disappearing Solutions of Maxwell's Equations</i>
10:55 am - 11:20 am	Yanlai Chen <i>Superconvergence Properties of Variable-degree HDG Methods on nonconforming meshes</i>
11:20 am - 11:45 am	Bo Dong <i>A New Multiscale Discontinuous Galerkin Method for the One-dimensional Stationary Schrödinger Equation</i>
Lunch break	
Session 3	
02:00 pm - 02:25 pm	Abner Salgado <i>Piecewise Polynomial Interpolation in Weighted Sobolev Spaces and Applications to Optimal Control Problems</i>
02:25 pm - 02:50 pm	Xiaoming He <i>Dual-porosity-Stokes Model and Finite Element Method for Coupling Dual-porosity Flow and Free Flow</i>
02:50 pm - 03:15 pm	Wujun Zhang <i>Convergence and Rates of Convergence for Monge-Ampere Equation</i>
Break	
Session 4	
03:30 pm - 03:55 pm	Yifeng Xu <i>An Adaptive Finite Element Method for Reconstruction of the Robin Coefficient</i>
03:55 pm - 04:20 pm	Huayi Wei <i>Introduction to Two New Triangle Mesh Optimization Methods</i>
04:20 pm - 04:45 pm	Yongke Wu <i>Superconvergence and Recovery Type a Posteriori Error Eestimation for Hhybrid Stress Finite Element Method</i>
04:45 pm - 05:10 pm	Zhengyu Zhang <i>Introduction to Numerical Investigation of Cavitation Bubble</i>

Sunday, August 9, 2015

Session 5

09:00 am - 09:25 am

Xiaoping Xie
Analysis of a Two-level Algorithm for HDG Methods for Diffusion Problems

09:25 am - 09:50 am

Xuehai Huang
Quasi-optimal Convergence Rate for an Adaptive Hybridizable C^0 Discontinuous Galerkin Method for Kirchhoff Plates

09:50 am - 10:15 am

Wenrui Hao
A Reduced Basis Homotopy Continuation Method For Computing Multiple Solutions of Nonlinear Differential Equations

Break

Session 6

10:30 am - 10:55 am

Xiu Ye
New Class of Finite Element Methods: Weak Galerkin Methods

10:55 am - 11:20 am

Shun Zhang
A New Trace Inequality and Its Applications in Error Estimates of Discontinuous Galerkin Methods

11:20 am - 11:45 am

Andreas Vogel
The Finite Element / Finite Volume Software Framework UG4

Lunch break

Session 7

02:00 pm - 02:25 pm

Wenjun Ying
A Space-Time Adaptive Algorithm for Cardiac Electrical Dynamics

02:25 pm - 02:50 pm

Jie Liu
A Second-order Stable Explicit Interface Advancing Scheme for FSI with Both Rigid and Elastic Structures and Its Application to Fish Swimming Simulations

02:50 pm - 03:15 pm

Shuo Zhang
Some Results on Structure Preserving Finite Elements

Break

Session 8

03:30 pm - 03:55 pm

Xiaobing Feng
A Finite Element Method for Linear Elliptic PDEs in Non-divergence Form

03:55 pm - 04:20 pm

Yunrong Zhu
Auxiliary Space Preconditioner for Linear Elasticity with Weakly Imposed Symmetry

04:20 pm - 04:45 pm

Liuqiang Zhong
A-posteriori Error Analysis for a Staggered Discontinuous Galerkin Discretization of the Time-Harmonic Maxwell's Equations

04:45 pm - 05:10 pm

Feng Wang
On a Parallel Robin-Robin Iterative Method for the Mixed Finite Elements

05:10 pm - 05:25 pm

Closing Ceremony