3rd Chinese-German Workshop on Computational and Applied Mathematics, Sept. 28 - Oct. 2, 2009, Heidelberg, Germany

German Participants:

1. Eberhard Bänsch (U Erlangen; baensch@am.uni-erlangen.de)
   Free surface flows in engineering applications

2. Peter Bastian (U Heidelberg; peter.bastian@iwr.uni-heidelberg.de)
   Generic software components for finite elements

3. Hans Georg Bock (U Heidelberg; bock@iwr.uni-heidelberg.de)
   Parameter estimation and optimum experimental design revisited

4. Malte Braack (U Kiel; mabr@informatik.uni-kiel.de)
   Dual-based a posteriori error estimation for quasi-periodic problems

5. Carsten Carstensen (HU Berlin; cc@math.hu-berlin.de)
   Computational challenges in the calculus of variations

6. Vincent Heuveline (U Karlsruhe; vincent.heuveline@rz.uni-karlsruhe.de)
   Emerging hardware and numerical simulation: a walk of seven bridges over the gap

7. Michael Hinze (U Hamburg; michael.hinze@uni-hamburg.de)
   Numerical analysis of parabolic control problems with state constraints

8. Dietmar Kröner (U Freiburg; dietmar@mathematik.uni-freiburg.de)
   Modelling and numerical simulations for shallow water flows

9. Andreas Prohl (U Tübingen; prohl@na.uni-tuebingen.de)
   Modeling, analysis, and numerics of electroosmotic flow

10. Rolf Rannacher (U Heidelberg; rannacher@iwr.uni-heidelberg.de)
    On the adaptive Newmark scheme for the wave equation

11. Hans-G. Roos (TU Dresden; Hans-Goerg.Roos@tu-dresden.de)
    Finite element methods for singularly perturbed problems: some recent results

12. Ekkehard Sachs (U Trier; sachs@uni-trier.de)
    Numerical solution of algebraic Riccati equations

13. Reinhold Schneider (U Kiel; rs@numerik.uni-kiel.de)
    A posteriori error estimators for finite element sparse grid discretization

14. Volker Schulz (U Trier; Volker.Schulz@uni-trier.de)
    Efficient shape optimization for certain and uncertain aerodynamic design

15. Ernst P. Stephan (U Hannover; stephan@ifam.uni-hannover.de)
    Efficient solution strategy for two-body elasto-dynamic contact problem with Coulomb friction

16. Lutz Tobiska (U Magdeburg; Lutz.Tobiska@mathematik.uni-magdeburg.de)
    Supercloseness and superconvergence of stabilized low order finite element discretizations of the Stokes Problem

17. Stefan Turek (TU Dortmund; ture@mathematik.uni-dortmund.de)
    FEM multigrid techniques for viscoelastic flow

18. Boris Vexler (TU München; vexler@ma.tum.de)
    A priori error estimates for nite element discretization of state constrained optimal control problems governed by parabolic equations

19. Christian Wieners (U Karlsruhe; wieners@math.uni-karlsruhe.de)
    Duality methods in incremental infinitesimal plasticity

PhD Students

20. Adran Hirn (U Heidelberg; adrian.hirn@iwr.uni-heidelberg.de)
    Finite element approximation of the p-Stokes equation with pressure-gradient stabilization based on local projections

21. Joscha Gedicke (HU Berlin; gedicke@math.hu-berlin.de)
    Adaptive computation of eigenvalue problems

22. Kathrin Hatz (U Heidelberg; kathrin.hatz@iwr.uni-heidelberg.de)
    Estimating parameters in optimal control problems

23. Jevgeni Vihharev (U Heidelberg; jevgeni.vihharev@iwr.uni-heidelberg)
    Optimal control problems in digital image processing

24. Leonard Wirsching (U Heidelberg; leonard.wirsching@iwr.uni-heidelberg.de)
    Multi-level iteration schemes for nonlinear model predictive control

25. Winnifried Wollner (U Heidelberg; winnifried.wollner@iwr.uni-heidelberg.de)
    Adaptive FEM for PDE constrained optimization with pointwise state constraints

Chinese Participants:

1. Aihui Zhou (Chinese Academy of Sciences, Beijing; azhou@lsec.cc.ac.cn)
   Adaptive hexahedral finite element methods for electronic structure calculations

2. Chunxiong Zheng (Tsinghua University, Beijing; czheng@math.tsinghua.edu.cn)
   Gaussian beam summation method for the boundary value problem of high frequency Helmholtz equation

3. Danping Yang (East China Normal University, Shanghai; dpyang@math.ecnu.edu.cn)
   Finite element approximation for optimal control problems with some global state constraints

4. Dehao Yu (Chinese Academy of Sciences, Beijing; ydh@lsec.cc.ac.cn)
   Hypersingular integral equations and related numerical methods

5. Jun Hu (Peking University; hujun@pku.edu.cn)
   Adaptive nonconforming methods for high-order partial differential equations

6. Ningning Yan (Chinese Academy of Sciences, Beijing; ynn@amss.ac.cn)
   Some finite element schemes for state-constrained optimal control problems

7. Pingbing Ming (Chinese Academy of Sciences, Beijing; mpb@lsec.cc.ac.cn)
   Economical heterogeneous multiscale method for homogenization problems

8. Pingwen Zhang (Peking University; pzhang@pku.edu.cn)
   Numerical method of the self-consistent field theory

9. Shao-Chun Chen (Zhengzhou Universit; shchchen@zzu.edu.cn)
   Anisotropic Lagrange and Hermite interpolation of any order

10. Weiying Zheng (Chinese Academy of Sciences, Beijing)
    Uniaxial perfectly matched layer for Helmholtz equations in layered media

11. Xuejun Xu (Chinese Academy of Sciences, Beijing; xxj@lsec.cc.ac.cn)
    Local multilevel methods for adaptive finite element methods

12. Yang Xiang (Hong Kong University of Science and Technology; maxiang@ust.hk)
    A continuum model for dislocation dynamics in a slip plane

13. Zhong-Ci Shi (Chinese Academy of Sciences, Beijing; shi@lsec.cc.ac.cn)
    Recent progress on Wilson nonconforming finite element

14. Ziqing Xie (Hunan Normal University, Changsha; ziqingxie@hunnu.edu.cn)
    The computational methods of finding multiple solutions of semilinear elliptic equations and their related topics

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PhD Students

15. Huangxin Chen (Chinese Academy of Sciences, Beijing; chx@lsec.cc.ac.cn)
Convergence and optimality of adaptive nonconforming finite element methods for nonsymmetric and indefinite Problems

16. Wei Jiang (Beijing University; jiangwei@math.pku.edu.cn)
A numerical study of wrinkling evolution of an elastic film on a viscous layer

17. Jianzhen Qian (Peking University; qianjzmath@gmail.com)
Well-posedness in critical spaces for viscoelastic fluid systems

18. Xuying Zhao (Chinese Academy of Sciences, Beijing; zhaoxy@lsec.cc.ac.cn)
Convergence analysis of the adaptive finite element method with the red-green refinement

19. Tao Zhou (Chinese Academy of Sciences, Beijing; datian2008@163.com)
Convergence analysis for stochastic collocation methods to scalar hyperbolic equations with a random wave speed