TECHNISCHE UNIVERSITÄT CHEMNITZ

Artus Mustermann

Co Au Tor

A New Method For Parallel Writing Papers

Preprint SFB393/04-44

Sonderforschungsbereich 393

Parallele Numerische Simulation für Physik und Kontinuumsmechanik

TECHNISCHE UNIVERSITÄT CHEMNITZ

Sonderforschungsbereich 393

Parallele Numerische Simulation für Physik und Kontinuumsmechanik

Artus Mustermann Co Au Tor

A New Method For Parallel Writing Papers

Preprint SFB393/04-44

Preprintreihe des Chemnitzer SFB 393

ISSN 1619-7178 (Print) ISSN 1619-7186 (Internet)

SFB393/04-44 April 2004

Contents

Author's addresses:

Artus Mustermann
Co Au Tor
TU Chemnitz
Fakultät für Mathematik
D-09107 Chemnitz

http://www.tu-chemnitz.de/sfb393/

1 Introduction

Hier beginnt die eigentliche Arbeit.

2 Whatever I Wanted To Say

Nach dem Ende der Arbeit vielleicht etwas Eigenwerbung?

```
\small
\input{sfbreihe}
```

Es sollen nicht unbedingt alle Jahrgänge aufgelistet werden (nur, falls am Ende noch Seiten übrig sind, um insgesamt auf ein Vielfaches von 4 zu kommen). Das File `sfbreihe.tex` enthält für jeden Jahrgang eine `\input`-Anweisung, die teilweise auskommentiert werden können.

References

[1] P. Benner, V. Mehrmann, and H. Xu. A new method for computing the stable invariant subspace of a real Hamiltonian matrix or breaking Van Loan's curse? Preprint SFB393/97-01, TU Chemnitz-Zwickau, January 1997.

[2] W. Dahmen and R. Schneider. Composite wavelet bases for operator equations. Preprint SFB393/96-19, TU Chemnitz-Zwickau, November 1996.

[3] A. EIlmes, R. A. Römer, and M. Schreiber. Critical behavior in the two-dimensional Anderson model of localization with random hopping. Preprint SFB393/97-19, TU Chemnitz, August 1997. to appear in: Phys. Stat. Sol., Jan. 1998.

[4] G. Globisch and S. V. Nepomnyaschikh. The hierarchical preconditioning having unstructured grids. Preprint SFB393/97-11, TU Chemnitz-Zwickau, April 1997.

[5] U.-J. Görke and R. Kreißig. Einflußfaktoren bei der Identifikation von Materialparametern elastisch-plastischer Deformationsgesetze aus inhomogenen Verschiebungsfeldern. Preprint SFB393/97-04, TU Chemnitz-Zwickau, March 1997.

[6] L. Grabowsky, T. Ermer, and J. Werner. Nutzung von MPI für parallele FEM-Systeme. Preprint SFB393/97-08, TU Chemnitz-Zwickau, März 1997.

[7] G. Haase, T. Hommel, A. Meyer, and M. Pester. Bibliotheken zur Entwicklung paralleler Algorithmen. Preprint SPC 95_20, TU Chemnitz-Zwickau, Juni 1995.

[8] D. Lohse. Ein Standard-File für 3D-Gebietsbeschreibungen. – Datenbasis und Programmschnittstelle `data_read`. Preprint SFB393/98-17, TU Chemnitz, April 1998.

Other titles in the SFB393 series:

01-01 G. Kunert. Robust local problem error estimation for a singularly perturbed problem on anisotropic finite element meshes. January 2001.

01-02 G. Kunert. A note on the energy norm for a singularly perturbed model problem. January 2001.

01-03 U.-J. Görke, A. Bucher, R. Kreißig. Ein Beitrag zur Materialparameteridentifikation bei finiten elastisch-plastischen Verzerrungen durch Analyse inhomogener Verschiebungsfelder mit Hilfe der FEM. Februar 2001.

01-04 R. A. Römer. Percolation, Renormalization and the Quantum-Hall Transition. February 2001.

01-05 A. Eilmes, R. A. Römer, C. Schuster, M. Schreiber. Two and more interacting particles at a metal-insulator transition. February 2001.

01-06 D. Michael. Kontinuumstheoretische Grundlagen und algorithmische Behandlung von ausgewählten Problemen der assoziierten Fließtheorie. März 2001.

01-07 S. Beuchler. A preconditioner for solving the inner problem of the p-version of the FEM, Part II - algebraic multi-grid proof. March 2001.

01-08 S. Beuchler, A. Meyer. SPC-PM3AdH v 1.0 - Programmer's Manual. March 2001.

01-09 D. Michael, M. Springmann. Zur numerischen Simulation des Versagens duktiler metallischer Werkstoffe (Algorithmische Behandlung und Vergleichsrechnungen). März 2001.

01-10 B. Heinrich, S. Nicaise. Nitsche mortar finite element method for transmission problems with singularities. March 2001.

01-11 T. Apel, S. Grosman, P. K. Jimack, A. Meyer. A New Methodology for Anisotropic Mesh Refinement Based Upon Error Gradients. March 2001.

01-12 F. Seifert, W. Rehm. (Eds.) Selected Aspects of Cluster Computing. March 2001.

01-13 A. Meyer, T. Steidten. Improvements and Experiments on the Bramble–Pasciak Type CG for mixed Problems in Elasticity. April 2001.

01-14 K. Ragab, W. Rehm. CHEMPI: Efficient MPI for VIA/SCI. April 2001.

01-15 D. Balkanski, F. Seifert, W. Rehm. Proposing a System Software for an SCI-based VIA Hardware. April 2001.

01-16 S. Beuchler. The MTS-BPX-preconditioner for the p-version of the FEM. May 2001.

01-17 S. Beuchler. Preconditioning for the p-version of the FEM by bilinear elements. May 2001.

01-18 A. Meyer. Programmer's Manual for Adaptive Finite Element Code SPC-PM 2Ad. May 2001.

01-19 P. Cain, M.L. Ndawana, R.A. Römer, M. Schreiber. The critical exponent of the localization length at the Anderson transition in 3D disordered systems is larger than 1. June 2001

01-20 G. Kunert, S. Nicaise. Zienkiewicz-Zhu error estimators on anisotropic tetrahedral and triangular finite element meshes. July 2001.

01-21 G. Kunert. A posteriori H^1 error estimation for a singularly perturbed reaction diffusion problem on anisotropic meshes. August 2001.

01-22 A. Eilmes, Rudolf A. Römer, M. Schreiber. Localization properties of two interacting particles in a quasi-periodic potential with a metal-insulator transition. September 2001.

01-23 M. Randrianarivony. Strengthened Cauchy inequality in anisotropic meshes and application to an a-posteriori error estimator for the Stokes problem. September 2001.

01-24 Th. Apel, H. M. Randrianarivony. Stability of discretizations of the Stokes problem on anisotropic meshes. September 2001.

01-25 Th. Apel, V. Mehrmann, D. Watkins. Structured eigenvalue methods for the computation of corner singularities in 3D anisotropic elastic structures. October 2001.

01-26 P. Cain, F. Milde, R. A. Römer, M. Schreiber. Use of cluster computing for the Anderson model of localization. October 2001. Conf. on Comp. Physics, Aachen (2001).

01-27 P. Cain, F. Milde, R. A. Römer, M. Schreiber. Applications of cluster computing for the Anderson model of localization. October 2001. Transworld Research Network for a review compilation entitled "Recent Research Developments in Physics", (2001).

01-28 X. W. Guan, A. Foerster, U. Grimm, R. A. Römer, M. Schreiber. A supersymmetric Uq[(osp)(2—2)]-extended Hubbard model with boundary fields. October 2001.

01-29 K. Eppler, H. Harbrecht. Numerical studies of shape optimization problems in elasticity using wavelet-based BEM. November 2001.

01-30 A. Meyer. The adaptive finite element method - Can we solve arbitrarily accurate? November 2001.

01-31 H. Harbrecht, S. Pereverzev, R. Schneider. An adaptive regularization by projection for noisy pseudodifferential equations of negative order. November 2001.

01-32 G. N. Gatica, H. Harbrecht, R. Schneider. Least squares methods for the coupling of FEM and BEM. November 2001.

01-33 Th. Apel, A.-M. Sändig, S. I. Solov'ev. Computation of 3D vertex singularities for linear elasticity: Error estimates for a finite element method on graded meshes. December 2001.

02-01 M. Pester. Bibliotheken zur Entwicklung paralleler Algorithmen - Basisroutinen für Kommunikation und Grafik. Januar 2002.

02-02 M. Pester. Visualization Tools for 2D and 3D Finite Element Programs - User's Manual. January 2002.

02-03 H. Harbrecht, M. Konik, R. Schneider. Fully Discrete Wavelet Galerkin Schemes. January 2002.

02-04 G. Kunert. A posteriori error estimation for convection dominated problems on anisotropic meshes. March 2002.

02-05 H. Harbrecht, R. Schneider. Wavelet Galerkin Schemes for 3D-BEM. February 2002.

02-06 W. Dahmen, H. Harbrecht, R. Schneider. Compression Techniques for Boundary Integral Equations - Optimal Complexity Estimates. April 2002.

02-07 S. Grosman. Robust local problem error estimation for a singularly perturbed reaction-diffusion problem on anisotropic finite element meshes. May 2002.

02-08 M. Springmann, M. Kuna. Identifikation schädigungsmechanischer Materialparameter mit Hilfe nichtlinearer Optimierungsverfahren am Beispiel des Rousselier Modells. Mai 2002.

02-09 S. Beuchler, R. Schneider, C. Schwab. Multiresolution weighted norm equivalences and applications. July 2002.

02-10 Ph. Cain, R. A. Römer, M. E. Raikh. Renormalization group approach to energy level statistics at the integer quantum Hall transition. July 2002.

02-11 A. Eilmes, R. A. Römer, M. Schreiber. Localization properties of two interacting particles in a quasiperiodic potential with a metal-insulator transition. July 2002.

02-12 M. L. Ndawana, R. A. Römer, M. Schreiber. Scaling of the Level Compressibility at the Anderson Metal-Insulator Transition. September 2002.

02-13 Ph. Cain, R. A. Römer, M. E. Raikh. Real-space renormalization group approach to the quantum Hall transition. September 2002.

02-14 A. Jellal, E. H. Saidi, H. B. Geyer, R. A. Römer. A Matrix Model for $\nu_{k_1 k_2} = \frac{k_1+k_2}{k_1 k_2}$ Fractional Quantum Hall States. September 2002.

02-15 M. Randrianarivony, G. Brunnett. Parallel implementation of curve reconstruction from noisy samples. August 2002.

02-16 M. Randrianarivony, G. Brunnett. Parallel implementation of surface reconstruction from noisy samples. September 2002.

02-17 M. Morgenstern, J. Klijn, Chr. Meyer, R. A. Römer, R. Wiesendanger. Comparing measured and calculated local density of states in a disordered two-dimensional electron system. September 2002.

02-18 J. Hippold, G. Rünger. Task Pool Teams for Implementing Irregular Algorithms on Clusters of SMPs. October 2002.

02-19 H. Harbrecht, R. Schneider. Wavelets for the fast solution of boundary integral equations. October 2002.

02-20 H. Harbrecht, R. Schneider. Adaptive Wavelet Galerkin BEM. October 2002.

02-21 H. Harbrecht, R. Schneider. Wavelet Galerkin Schemes for Boundary Integral Equations - Implementation and Quadrature. October 2002.

03-01 E. Creusé, G. Kunert, S. Nicaise. A posteriory error estimation for the Stokes problem: Anisotropic and isotropic discretizations. January 2003.

03-02 S. I. Solov'ëv. Existence of the guided modes of an optical fiber. January 2003.

03-03 S. Beuchler. Wavelet preconditioners for the p-version of the FEM. February 2003.

03-04 S. Beuchler. Fast solvers for degenerated problems. February 2003.

03-05 A. Meyer. Stable calculation of the Jacobians for curved triangles. February 2003.

03-06 S. I. Solov'ëv. Eigenvibrations of a plate with elastically attached load. February 2003.

03-07 H. Harbrecht, R. Schneider. Wavelet based fast solution of boundary integral equations. February 2003.

03-08 S. I. Solov'ëv. Preconditioned iterative methods for monotone nonlinear eigenvalue problems. March 2003.

03-09 Th. Apel, N. Düvelmeyer. Transformation of hexahedral finite element meshes into tetrahedral meshes according to quality criteria. May 2003.

03-10 H. Harbrecht, R. Schneider. Biorthogonal wavelet bases for the boundary element method. April 2003.

03-11 T. Zhanlav. Some choices of moments of refinable function and applications. June 2003.

03-12 S. Beuchler. A Dirichlet-Dirichlet DD-pre-conditioner for p-FEM. June 2003.

03-13 Th. Apel, C. Pester. Clément-type interpolation on spherical domains - interpolation error estimates and application to a posteriori error estimation. July 2003.

03-14 S. Beuchler. Multi-level solver for degenerated problems with applications to p-version of the fem. *(Dissertation)* July 2003.

03-15 Th. Apel, S. Nicaise. The inf-sup condition for the Bernardi-Fortin-Raugel element on anisotropic meshes. September 2003.

03-16 G. Kunert, Z. Mghazli, S. Nicaise. A posteriori error estimation for a finite volume discretization on anisotropic meshes. September 2003.

03-17 B. Heinrich, K. Pönitz. Nitsche type mortaring for singularly perturbed reaction-diffusion problems. October 2003.

03-18 S. I. Solov'ëv. Vibrations of plates with masses. November 2003.

03-19 S. I. Solov'ëv. Preconditioned iterative methods for a class of nonlinear eigenvalue problems. November 2003.

03-20 M. Randrianarivony, G. Brunnett, R. Schneider. Tessellation and parametrization of trimmed surfaces. December 2003.

The complete list of current and former preprints is available via
`http://www.tu-chemnitz.de/sfb393/preprints.html`.

Preprintreihe des Chemnitzer SFB 393 – ISSN 1619-7178 (Print)