Titles of the lectures

September 9, 2005

| E. Bohl | Diauxie growth. Modeling a pathway in a cell |
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| P. Burda, J. Novotný, J. Šístek | An application of a priori and a posteriori error estimate to accurate FEM solution for incompressible flows |
| M. Čertíková, J. Novotný, <br> B. Sousedík, J. Tuzar | Výpočty napjatosti kloubní náhrady metodou konečných proku |
| V. Dolejší | The title will be announced later |
| Z. Dostál | Solution of coercive and semicoercive boundary variational inequalities by combining fast quadratic programming algorithms with symmetric BEM |
| I. Hlaváček | Mixed finite element analysis of semi-coercive unilateral contact problems with given friction |
| J. Chleboun | Problems with fuzzy data |
| D. Janovská | A mathematical introduction to chemical networks |
| V. Janovský | The analytic singular value decomposition |
| R. Kohut | Parallel computing of nonstationary heat equations |
| K. Krečmer | The PETSc library |
| J. Kruis | Combination of particular and continuous models |
| Kučera V. | The title will be announced later. |
| J. Lampe | Second order Arnoldi reduction: Application to some engineering problems |
| L. Lukšan | An efficient method for minimizing large-scale partially separable nonsmooth functions |
| P. Moses | An application of BEM in acoustic scattering |
| A. Prachař, K. Najzar | Discontinuous Galerkin method on problems with nonlinear Newton boundary conditions |
| P. Přikryl (1) | Verification and validation of a computer model of phase changes |
| P. Přikryl (2) | Verification of a computational solution to the Stefan problem |


| M. Rozložník | Rounding error analysis of the classical Gram-Schmidt process |
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| K. Segeth, P. Šolín | Hierarchic Hermite elements in two dimensions |
| V. Sobotíková | The title will be announced later |
| J.D. Tebbens, M. Tůma | Preconditioning of sequences of large sparse and non- <br> symmetric linear systems |
| V. Vondrák | The role of mathematical programming in muscle recruitment <br> H. Voss (1)Automated multi-level substructuring for nonlinear <br> eigenvalue problems |
| H. Voss (2) | Numerical simulation of quantum dots |

