

Minisymposium on Substructuring, Dimension Reduction and Applications  
@ PARA'04 State-of-the-Art in Scientific Computing , Lyngby, Denmark  
June 21, 2004

11:00 – 11:20 **Z. Bai** and B. Liao, University of California, Davis, USA  
Towards an Optimal Substructuring Method for Model-Order Reduction  
of Large-Scale Dynamical Systems

11:20 – 11:40 **D. Bindel** and J. Demmel, University of California, Berkeley, USA  
Reduced Order Models in Microsystems and RF MEMS”

11:40 – 12:00 **X. Cai**, University of Colorado, Boulder, USA  
Nonlinear Schwarz Methods

12:00 – 12:20 **A. Laub**, University of California, Davis and DOE, USA  
Statistical Condition Estimation for Linear Systems

12:20 – 12:40 **R. Li**, University of Kentucky, USA  
Structure-Preserving Model Order Reduction

Lunch

13:50 – 14:10 **D. Rixen**, TU-Delft, The Netherlands  
Parallel Computation in Structural Dynamics: Domain Decomposition or  
Dynamic Substructuring?

14:10 – 14:30 **E. B. Rudnyi** and J. G. Korvink, Universitaet Freiburg, Germany  
Model Order Reduction for Large Scale Engineering Models Developed in ANSYS

14:30 – 14:50 **A. Ruhe**, KTH, Sweden  
Rational Krylov for Nonlinear Eigenvalue Problems

14:50 – 15:10 **J. Staudacher**, University of Strathclyde, UK  
Parallel Preconditioning for Problems in Elastoplasticity

15:10 – 15:30 **H. Voss**, TU Hamburg-Harburg, Germany  
Exploiting Model-Order Reduction Techniques for Solving Symmetric Rational Eigenproblems

Coffee

16:00 – 16:20 **C. Yang**, Lawrence Berkeley National Laboratory, USA  
Applying Automated Multi-level Sub-structuring Method to  
Large-Scale Electromagnetic Simulation

16:20 – 16:40 J. Badia, P. Benner, R. Mayo and **E. Quintana-Orti**,  
Universidad Jaume, Spain and TU Chemnitz, Germany  
Parallel Algorithms for Balanced Truncation Model Reduction of Sparse Systems

16:40 – 17:00 R. Ciegis, M. Baravykaite and R. Belevicius;  
Vilnius Gediminas Technical University, Lithuania  
Parallel Global Optimization of Foundation Schemes in Civil Engineering

17:00 – 17:20 Ilias Kotsireas, Wilfrid Laurier University, Waterloo, Canada  
Combinatorial Designs and High-Performance Computing

17:20 – 17:40 Sangback Ma, Hanyang University, Ansan, Korea  
A Comparison of Parallel Preconditioners for the Sparse  
Generalized Eigenvalue Problems by Rayleigh-quotient Minimization