

Sunday, September 6

18.00-22.00	Registration
19.00-20.45	Dinner
21.00-21.05	Opening: <i>M. ROZLOŽNÍK, M. BULÍČEK</i>
21.05-21.20	<i>V. CIML</i> : SlidesLive

Monday, September 7

9.00-10.40	Chair: <i>Z. STRAKOŠ</i>
9.00-9.50	<i>V. MEHRMANN</i> : Model reduction: analysis, numerical solution and real world applications Lecture I: Model reduction, a survey
9.50-10.40	<i>M. HINZE</i> : Mathematical aspects of proper orthogonal decomposition (POD) Lecture I: POD for time-dependent PDEs (emphasis on numerical analysis)
10.40-11.10	Coffee – Tea
11.10-12.00	Chair: <i>I. PULTAROVÁ</i>
11.10-12.00	<i>V. MEHRMANN</i> : Model reduction: analysis, numerical solution and real world applications Lecture II: Preservation of physical properties in model reduction methods
12.00-15.30	Lunch break
15.30-16.00	Coffee – Tea
16.00-17.40	Chair: <i>W. JÄGER</i>
16.00-16.50	<i>M. HINZE</i> : Mathematical aspects of proper orthogonal decomposition (POD) Lecture II: POD in PDE constrained optimization (with error analysis)
16.50-17.40	<i>V. MEHRMANN</i> : Model reduction: analysis, numerical solution and real world applications Lecture III: Model reduction in real world and industrial applications
18.30-21.00	Dinner

Tuesday, September 8

9.00-10.40	Chair: <i>M. VOHRALÍK</i>
9.00-9.50	<i>M. HINZE</i> : Mathematical aspects of proper orthogonal decomposition (POD) Lecture III: MOR in applications - towards parametric MOR for nonlinear PDE systems in networks
9.50-10.40	<i>J. M. NORDBOTTEN</i> : Understanding discretization error, solver error, and model error for deformable porous media
10.40-11.10	Coffee – Tea
11.10-12.00	Chair: <i>E. ROHAN</i>
11.10-12.00	<i>S. GUGERCIN</i> : Structure-preserving interpolatory model reduction for linear and nonlinear dynamical systems
12.00-15.30	Lunch break
15.30-16.00	Coffee – Tea
16.00-17.40	Chair: <i>E. SÜLI</i>
Presentation of the project MORE Part 1	
16.00-16.50	<i>J. MÁLEK</i> : Implicitly constituted materials: from modelling towards PDE-analysis
16.50-17.20	<i>K. R. RAJAGOPAL</i> : The mechanics and mathematics of bodies described by implicit constitutive equations
17.20-17.30	<i>A. JANEČKA</i> : Euler-Bernoulli type beam theory for elastic material with nonlinear response in the small strain range
17.30-17.40	<i>G. TIERRA</i> : Simulations of flows of fluids characterized by a non-monotone implicit constitutive relation
18.30-20.00	Dinner
20.00-20.30	RSJ Poster blitz introductory session <i>P. K. GOYAL</i> : Interpolatory model reduction for bilinear descriptor systems <i>C. HIMPE</i> : Optimization-based combined reduction for nonlinear systems <i>M. ISOZ</i> : Gravity-driven rivulet flow on a slowly varying substrate <i>V. JANOVSÝ</i> : Numerical analysis of a lumped parameter friction model <i>M. LANZENDÖRFER</i> : Some open problems in piezoviscous lubrication <i>Y. LU</i> : Model order reduction via a balanced truncation-interpolation approach for gas networks <i>B. MÜLLER</i> : Model reduction for geometrically nonlinear elasticity <i>P. MINAKOWSKI</i> : A novel Eulerian approach to crystal plasticity <i>M. MOLDENHAUER</i> : Optimal hip implant positioning <i>V. ORAVA</i> : Multi-phase modeling of non-isothermal reactive flow in fluidized bed reactors <i>J. PAPEŽ</i> : Algebraic error in Cascadic Conjugate Gradient Method <i>I. PULTAROVÁ</i> : Spectral properties of stochastic Galerkin matrices <i>E. ROHAN</i> : Modelling tissue perfusion - hierarchical models and identification <i>H. ŠVIHLOVÁ</i> : Determination of pressure data from velocity data with a view towards its application in cardiovascular mechanics <i>J. ŽABENSKÝ</i> : Completion of the existence theory for unsteady flows with a pressure- and shear-dependent viscosity
20.30-21.30	RSJ Poster session – wine & cheese

Wednesday, September 9

9.00-10.40	Chair: <i>D. HENRION</i>
9.00-9.50	<i>R. W. FREUND</i> : Krylov subspace-based model order reduction of RCL circuit equations
9.50-10.40	<i>L. CHAMOIN</i> : Verification and effectivity of PGD model reduction
10.40-11.10	Coffee – Tea
11.10-12.00	Chair: <i>M. BULÍČEK</i>
11.10-12.00	<i>U. MAAS</i> : Hierarchical concepts for model reduction for reacting flows based on low-dimensional manifolds
12.00-15.30	Lunch break
15.30-16.00	Coffee – Tea
16.00-17.40	Chair: <i>E. FEIREISL</i>
16.00-16.50	<i>J. -F. GERBEAU</i> : Approximated Lax pair for nonlinear evolution equations
16.50-17.40	<i>K. R. RAJAGOPAL</i> : Modeling the flow of traffic
19.00-22.00	Dinner at restaurant Spilka

Thursday, September 10

9.00-10.30	Chair: <i>V. PRŮŠA</i>
9.00-9.50	<i>R. CODINA</i> : Reduced-order subscales for POD models in fluid mechanics
Presentation of the project MORE Part 2	
9.50-10.10	<i>J. HRON</i> : Mixed formulations, numerical solutions and computations for viscous-plastic flows using implicit material relations
10.10-10.30	<i>M. VOHRALÍK</i> : A posteriori error estimates and adaptivity for Stokes flow with implicit constitutive laws
10.30-11.00	Coffee – Tea
11.00-12.10	Chairs: <i>M. HINZE, W. JÄGER, Z. STRAKOŠ</i>
11.00-12.00	Panel discussion
12.00-12.10	Final words
12.15-13.15	Lunch
13.30	Bus departure