Monday, July 31

12.00-13.50	**Lunch**
13.55-14.00	**Opening: *J. MÁLEK, E. SÜLI***
14.00-15.40	**Chair: *E. SÜLI***
14.00-14.50	***J. MÁLEK:*** Viscoelastic rate type fluids with stress diffusion: thermodynamic and PDE analysis
14.50-15.15	***K. TŮMA:*** Three-dimensional numerical simulations of viscoelastic models in real situations
15.15-15.40	***Y. LU*:** Existence of large-data finite-energy global weak solutions to a compressible Oldroyd-B model
15.40-16.10	**Coffee – Tea**
16.10-17.50	**Chair: *E. SÜLI***
16.10-16.35	***J. PAPEŽ:*** Algebraic error and a posteriori error estimation in numerical PDEs
16.35-17.00	***M. BULÍČEK:*** On the existence of integrable solutions to nonlinear elliptic systems and variational problems with linear growth
17.00-17.25	***Y. SENGUL:*** Traveling waves in one-dimensional non-linear models of strain-limiting viscoelasticity
17.25-17.50	***V. PRŮŠA:*** On the response of physical systems governed by nonlinear ordinary differential equations to step input
18.00-19.30	**Dinner**
20.00-20.30	**Poster blitz (=120 seconds) introductory session (chaired by E. Süli and V. Průša)** ***M. BÁTHORY:*** Outflow boundary condition leading to minimal energy dissipation for an incompressible flow ***J. BLECHTA:*** PCD preconditioners for the Navier-Stokes equations from a perspective of operator preconditioning theory ***T. GERGELITS*** Structure of loss of orthogonality and nearness to Krylov subspaces in finite precision computations ***A. JANEČKA:*** Flows of non-Newtonian fluids described by a non-monotone constitutive relation and their stability ***V. KULVAIT:*** A class of power-law elastic models capable of describing beta phase titanium alloys in the small strain range ***E. MARINGOVÁ:*** On a Navier-Stokes-Fourier-like system capturing transitions between viscous and inviscid fluid regimes and between no-slip and perfect-slip boundary conditions ***M. NETUŠIL:*** Multiscale modeling of aortic media ***V. ORAVA:*** Multi-phase modelling of a reactive flow in fluidized bed reactors heated by internal tubes ***I. PULTAROVÁ:*** Reducing complexity of stochastic Galerkin method ***B. SHE:*** Energy dissipative characteristic FEM scheme for the diffusive Oldroyd-B viscoelastic fluid ***P. TICHÝ:*** Towards practical estimation of the *A*-norm of the error in CG ***G. TIERRA:*** Efficient numerical schemes for mixtures of nematic-isotropic flows with anchoring and stretching effects ***T. TSCHERPEL:*** Steady flow of implicitly constituted incompressible fluids - Convergence analysis of FEM approximations ***K. TŮMA:*** Phase-field model for martensitic transformation and its applications ***J. ŽABENSKÝ:*** On unsteady flows of implicitly constituted incompressible heat-conducting fluids
20.30-21.30	**Poster session – wine & cheese**

Tuesday, August 1

9.00-10.40	**Chair: *Z. STRAKOŠ***
9.00-9.50	***V. MEHRMANN:*** Energy based modeling and model order reduction
9.50-10.40	***E. WIEDEMANN:*** Weak solutions in fluid dynamics
10.40-11.10	**Coffee – Tea**
11.10-12.00	**Chair: *I. PULTAROVÁ***
11.10-12.00	***U. RÜDE:*** Supercomputing for applications in the material sciences
12.00-15.30	**Lunch break**
15.30-16.00	**Coffee – Tea**
16.00-17.40	**Chair: *M. TŮMA, J. MÁLEK***
16.00-16.50	***A. NOVOTNÝ:*** Random talks with a busy guy on permanent vacation
16.50-17.40	***J. LIESEN:*** Piecing together the mosaic: Remarks on the mathematics of Zdeněk Strakoš
18.00-22.00	**Conference Banquet in honor of Eduard Feireisl and Zdeněk Strakoš**

Wednesday, August 2

9.00-10.40	**Chair*: E. FEIREISL***
9.00-9.50	***E. ROCCA:*** Entropic solutions arising in complex fluids dynamics and damage phenomena
9.50-10.40	***P. BASTIAN:*** Efficient implementation of spectral discontinuous Galerkin methods
10.40-11.10	**Coffee – Tea**
11.10-12.00	**Chair: *J. HRON***
11.10-12.00	***B. WOHLMUTH:*** Scaling finite element stencils for scalar and vectorial elliptic PDEs
12.00-13.30	**Lunch break**
13.30-18.30	**Hike to Budeč, the ancient castle with the oldest building in Bohemia**
18.30-20.00	**Dinner**

Thursday, August 3

9.00-10.40	**Chair*: M. POKORNÝ***
9.00-9.50	***A. JÜNGEL:*** Analysis of cross-diffusion systems arising in nonequilibrium thermodynamics
9.50-10.40	***G. SHIMPERNA:*** On a thermodynamically consistent model for two-phase fluids
10.40-11.10	**Coffee – Tea**
11.10-12.00	**Chair: *A. NOVOTNÝ***
11.10-11.35	***A. SWIERCZEWSKA-GWIAZDA:*** Weak solutions of conservation laws and energy/entropy conservation
11.35-12.00	***M. POKORNÝ*:** Steady equations describing flow of chemically reacting heat conducting compressible mixtures
12.00-15.00	**Lunch break**
15.00-16.15	**Chair: *L. DIENING***
15.00-15.25	***T. RICHTER*:** Modeling and simulation of mechano-chemical pattern formation processes
15.25-15.50	***M. VOHRALÍK:*** Guaranteed, locally space-time efficient, and polynomial-degree robust a posteriori error estimates for high-order discretizations of parabolic problems
15.50-16.15	***P. GWIAZDA*:** Measure-valued-strong uniqueness for hyperbolic systems
16.15-16.45	**Coffee – Tea**
16.45-18.00	**Chair: *M. ROZLOŽNÍK***
16.45-17.10	***M. PRANIC*:** Gauss quadrature and Lanczos algorithm
17.10-17.35	***M. TŮMA*:** Iterative solution of the linear least squares with dense rows
17.35-18.00	***G. MEURANT*:** An optimal Q-OR Krylov subspace method for solving linear systems
18.30-22.00	**Conference Dinner**

Friday, August 4

9.00-10.40	**Chair*: M. BULÍČEK***
9.00-9.25	***L. BECK*:** On the Dirchlet problem vs. the Neumann problem related to convex, variational integrals of linear growth
9.25-9.50	***V. KOVTUNENKO*:** On the states of stress and strain adjacent to a crack in a strain limiting viscoelastic body
9.50-10.15	***D. PRAŽÁK*:** Non-standard damped oscillators
10.15-10.40	***L. DIENING*:** Boundary values of functions with bounded deviatoric variation
10.40-11.10	**Coffee – Tea**
11.10-12.00	**Chairs: *Z. STRAKOŠ, E. FEIREISL***
11.10-11.35	***M. ŘEHOŘ*:** Diffuse interface models and their application in float forming
11.35-12.00	***S. SCHWARZACHER:*** On compressible fluids interacting with a linear-elastic shell
12.00-12.10	**Final words**
12.15-13.00	**Lunch**