

Institute of Mathematics of the Academy of Sciences
Mathematical Institute of the Charles University
Nečas Center for Mathematical Modeling

organized an international workshop

Nonlinear PDE's

to commemorate work of **Jindřich Nečas** (14. 12. 1929 – 5. 12. 2002)



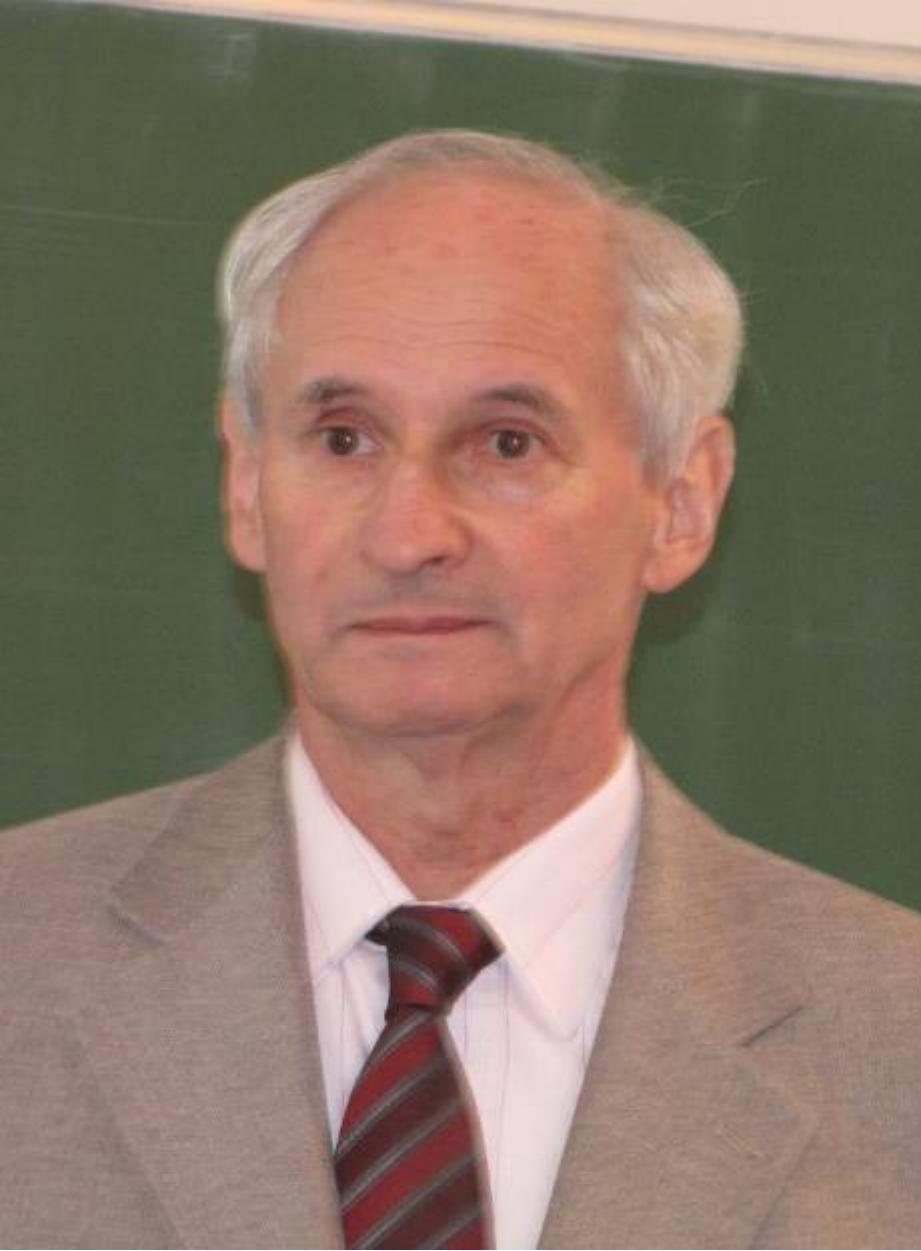
Prague, December 13-15, 2009



Sunday, December 13, opening of the conference



Philippe Ciarlet: Linear and nonlinear Korn's inequalities on a surface



Miloslav Feistauer: Analysis of the space-time discontinuous Galerkin method for the numerical solution of nonstationary nonlinear convection diffusion problem



Adélia Sequeira: The geometrical multiscale modelling in hemodynamics



Pavel Drábek: Eigenvalue problems for nonlinear homogeneous operators:
past, present and future



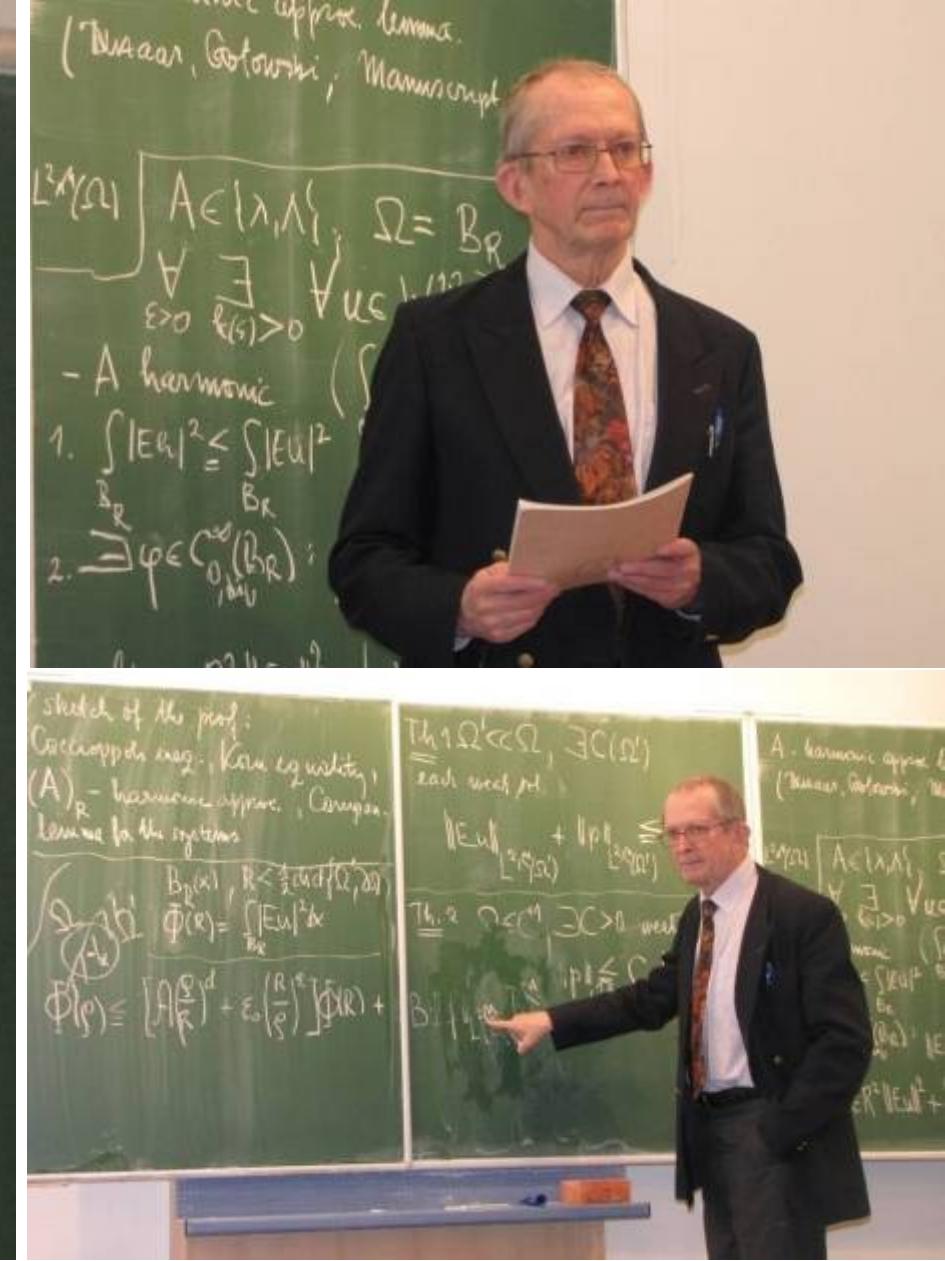
Pavol Quittner: Liouville type
theorems and singularities



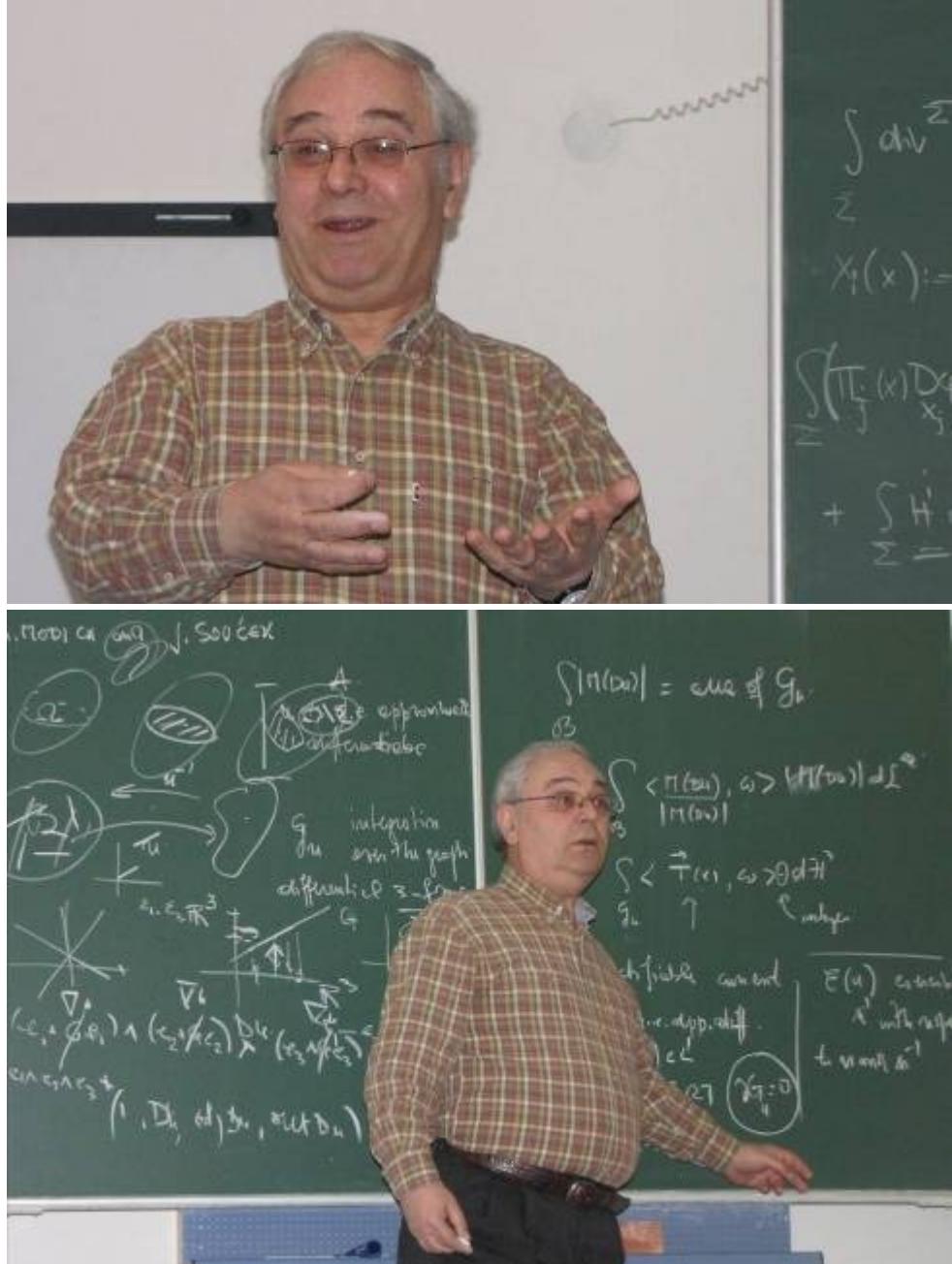
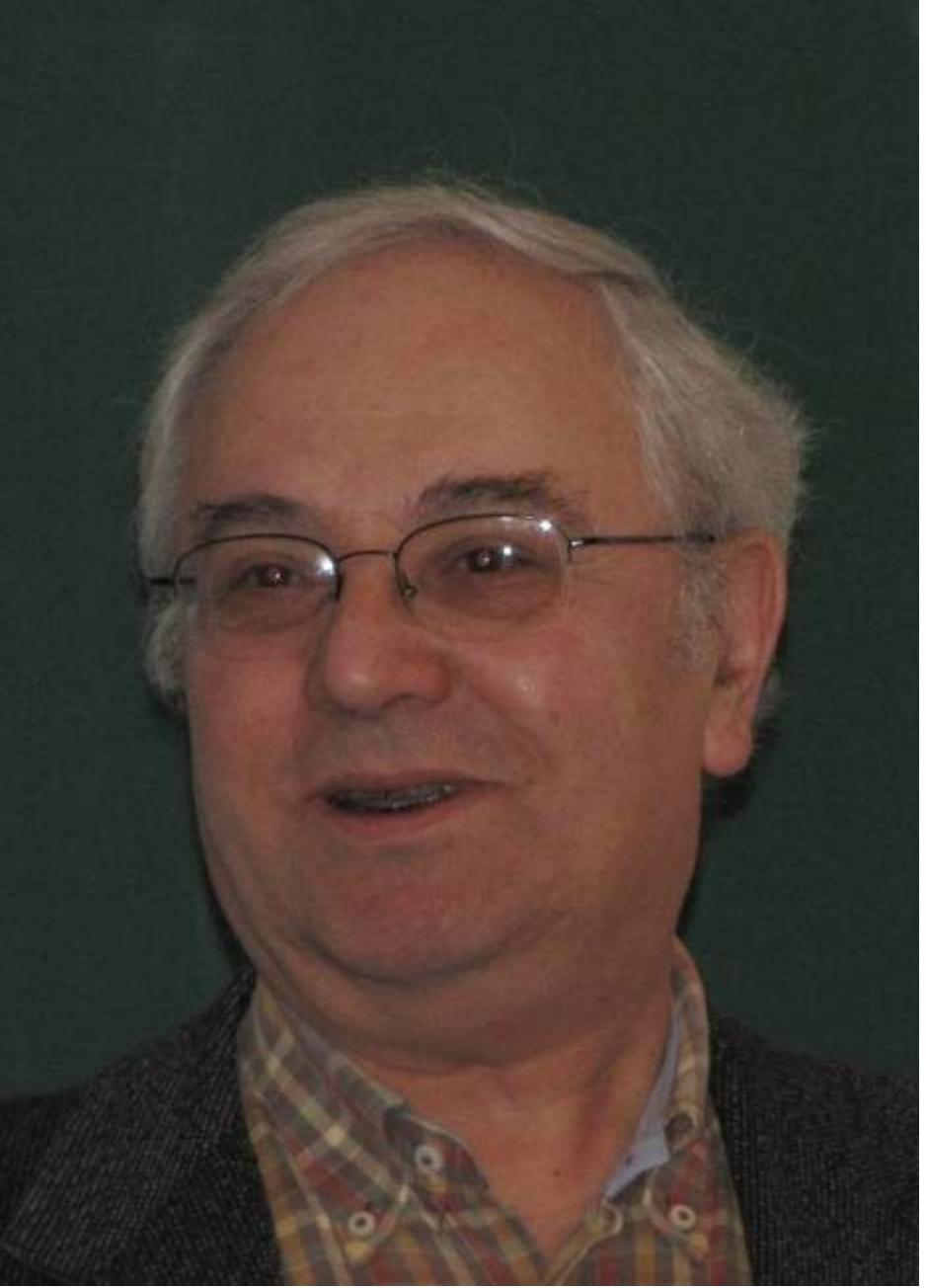
D. Ševčovič: Higher order Sobolev
estimates and nonlinear stability of
stationary solutions for the mean
curvature flow with triple junction



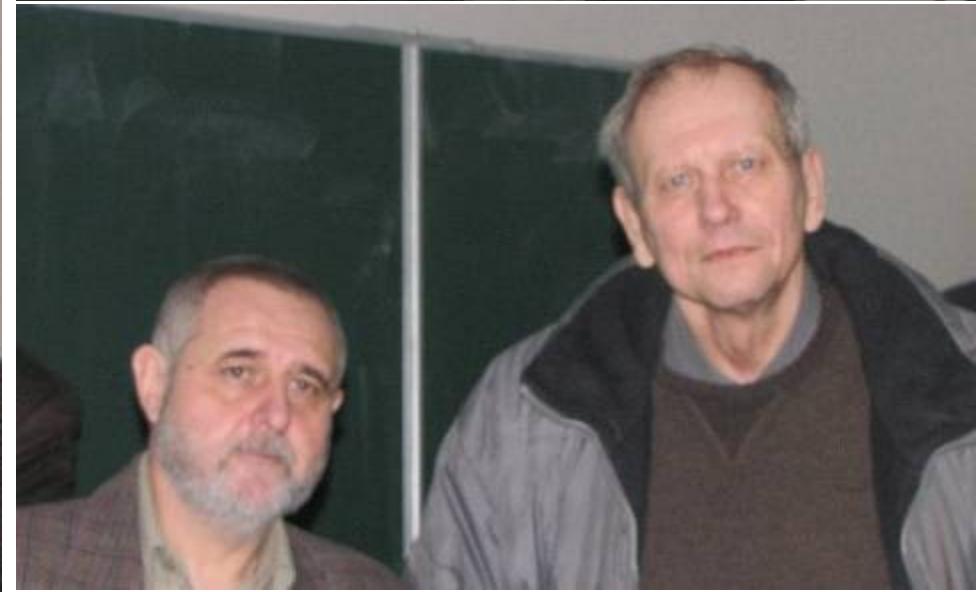
Jana Stará: A priori estimates for quasilinear parabolic systems with quadratic nonlinearities in gradient



Oldřich John: Morrey space regularity for weak solutions of Stokes systems with VMO coefficients



M. Giaquinta: Geometric Measure Theory, Nonlinear Elasticity and Fractures



Eugen Viszus, Josef Daněček: On the interior regularity for minimizers of quasilinear functionals



Giovanni P. Galdi: Steady Navier–Stokes flows past a rotating body:
Leray solutions are physically reasonable



Memorial seminar

December 14th 2009



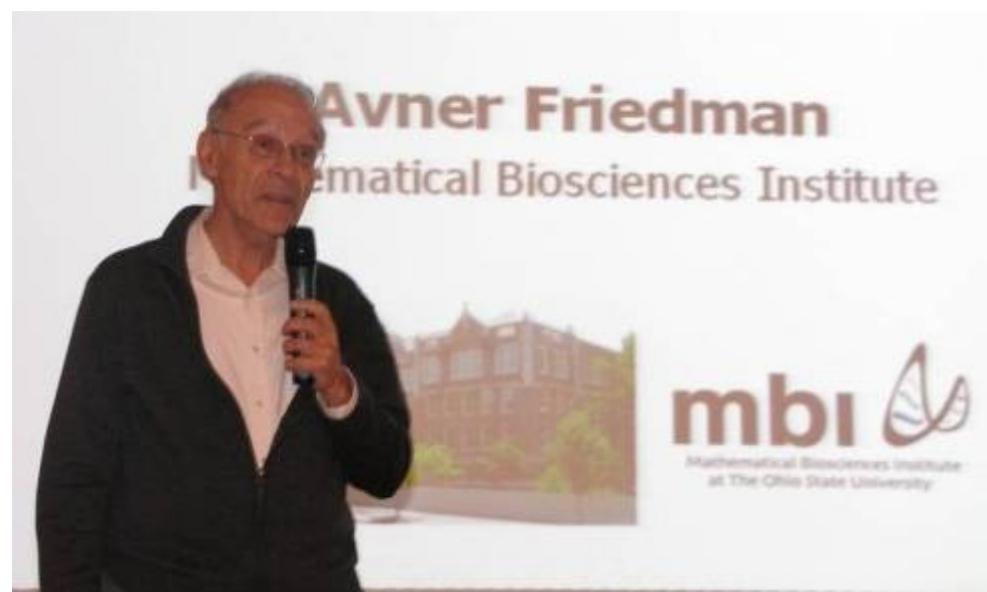
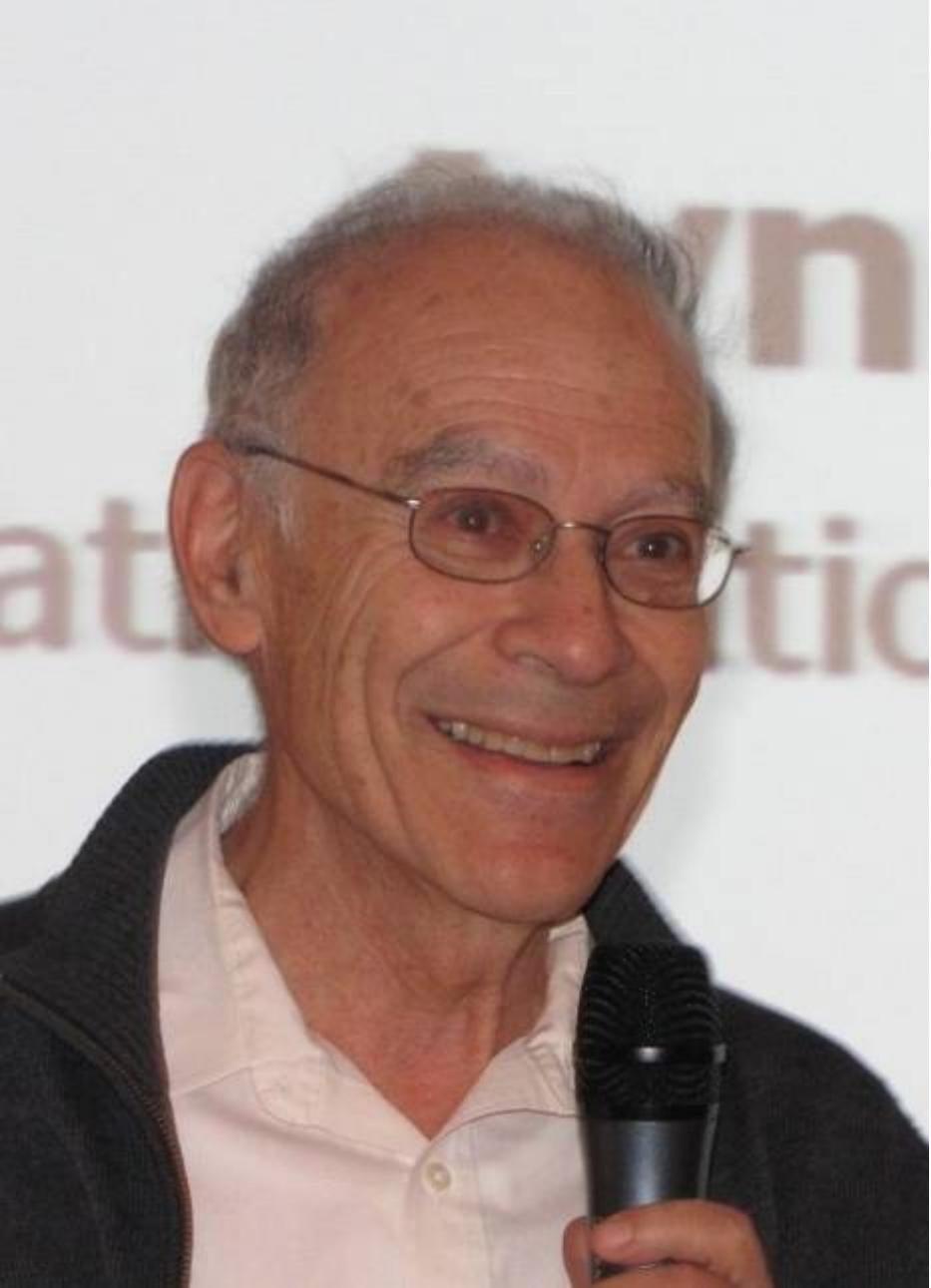


Welcome addresses by the representatives of the organizing institutions:
Jaroslav Pokorný, Jiří Drahoš, Miroslav Tůma, Ivan Netuka, Pavel Krejčí



Jindra Nečasová Nardelli:
In Front of Gate of Eternal Journey
for harp and organ
Performed by:
Barbora Váchalová (harp)
Michal Novenko (organ)





Avner Friedman: Symmetry breaking bifurcations of free boundary problems



Josef Málek: On Kelvin–Voigt model and its generalizations

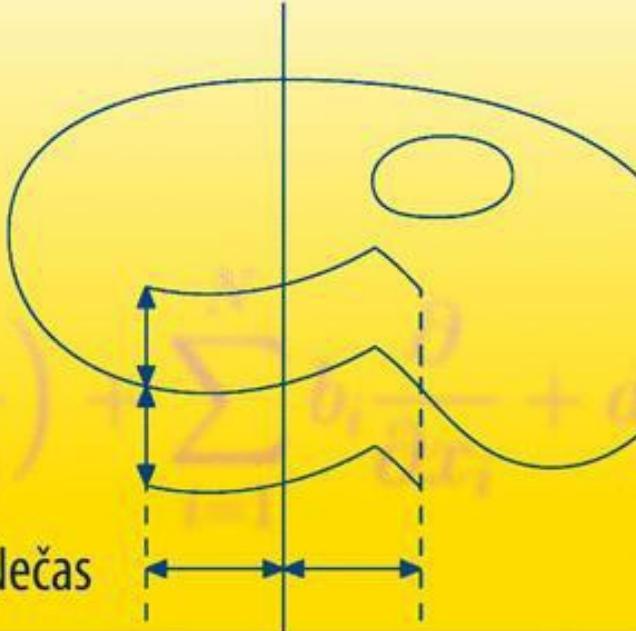


Willi Jäger: Mathematical modelling and simulation of biophysical and biochemical processes in membranes and tissues

Jindřich Nečas

Direct Methods in the Theory of Elliptic Equations

 Springer



Presentation of the English translation
of the book by Jindřich Nečas





J. S. Bach: Suite No.1 for solo viola



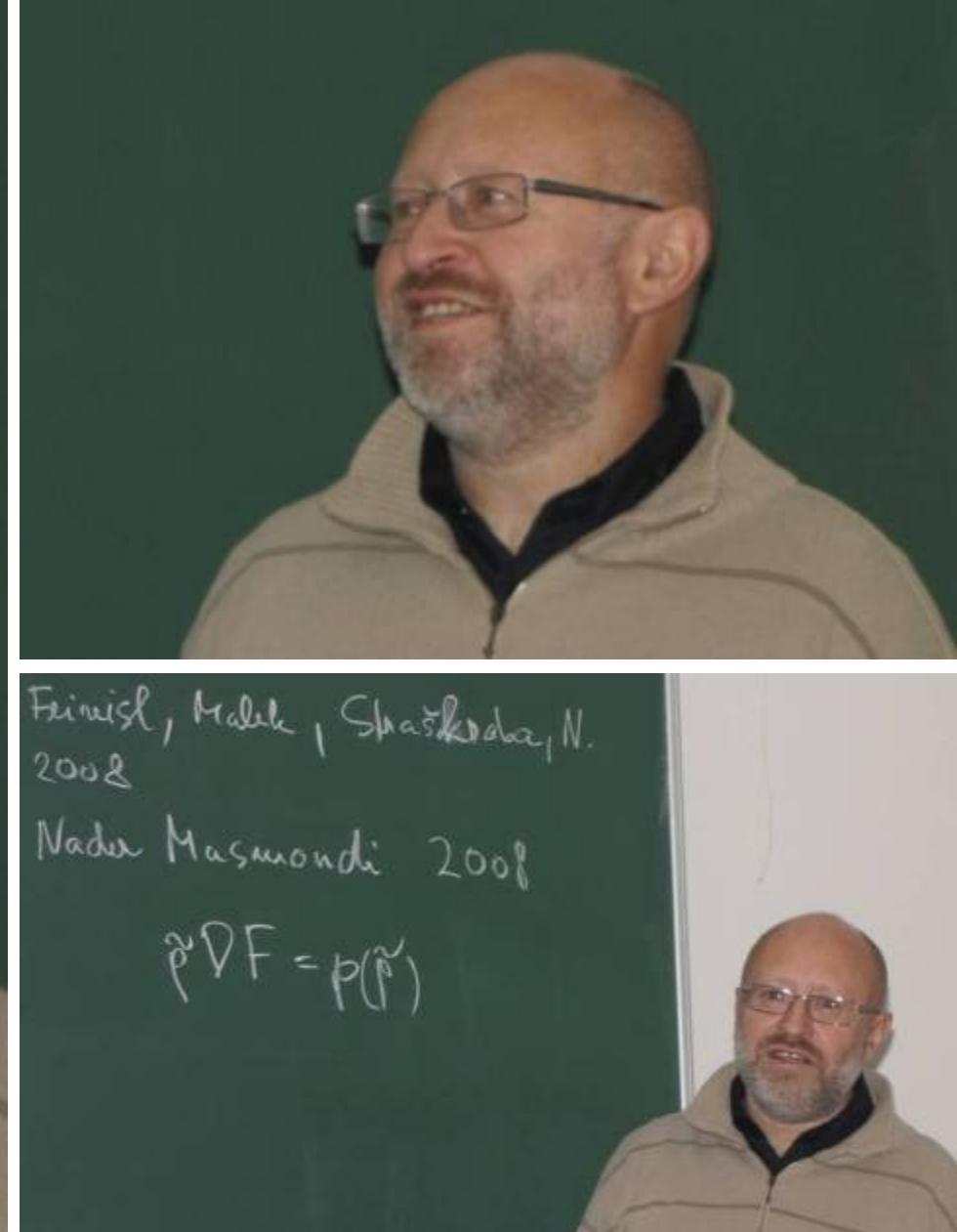
Performed by: Petra Feistauerová





Daughter, wife, grandson and daughter of professor Jindřich Nečas

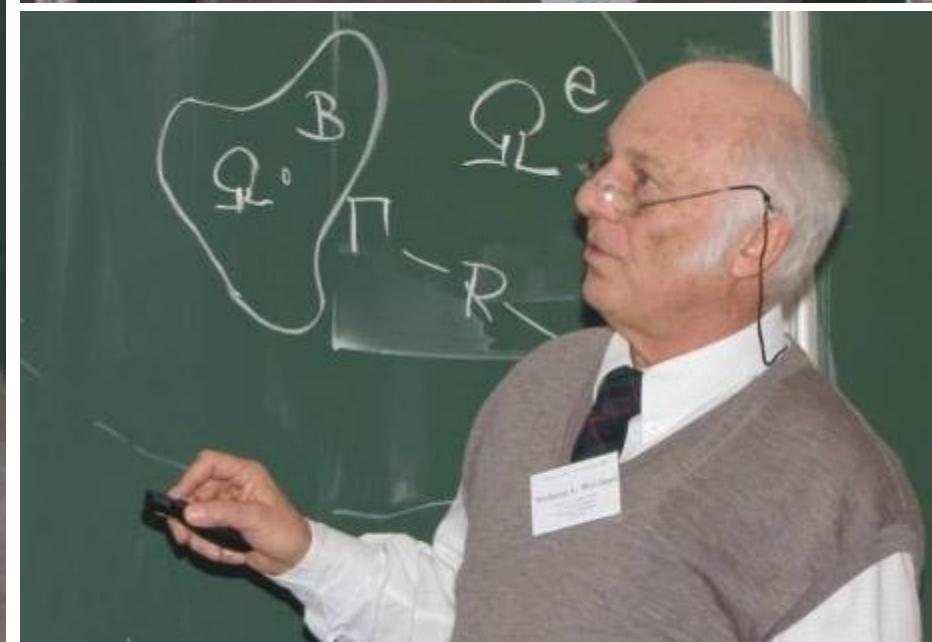




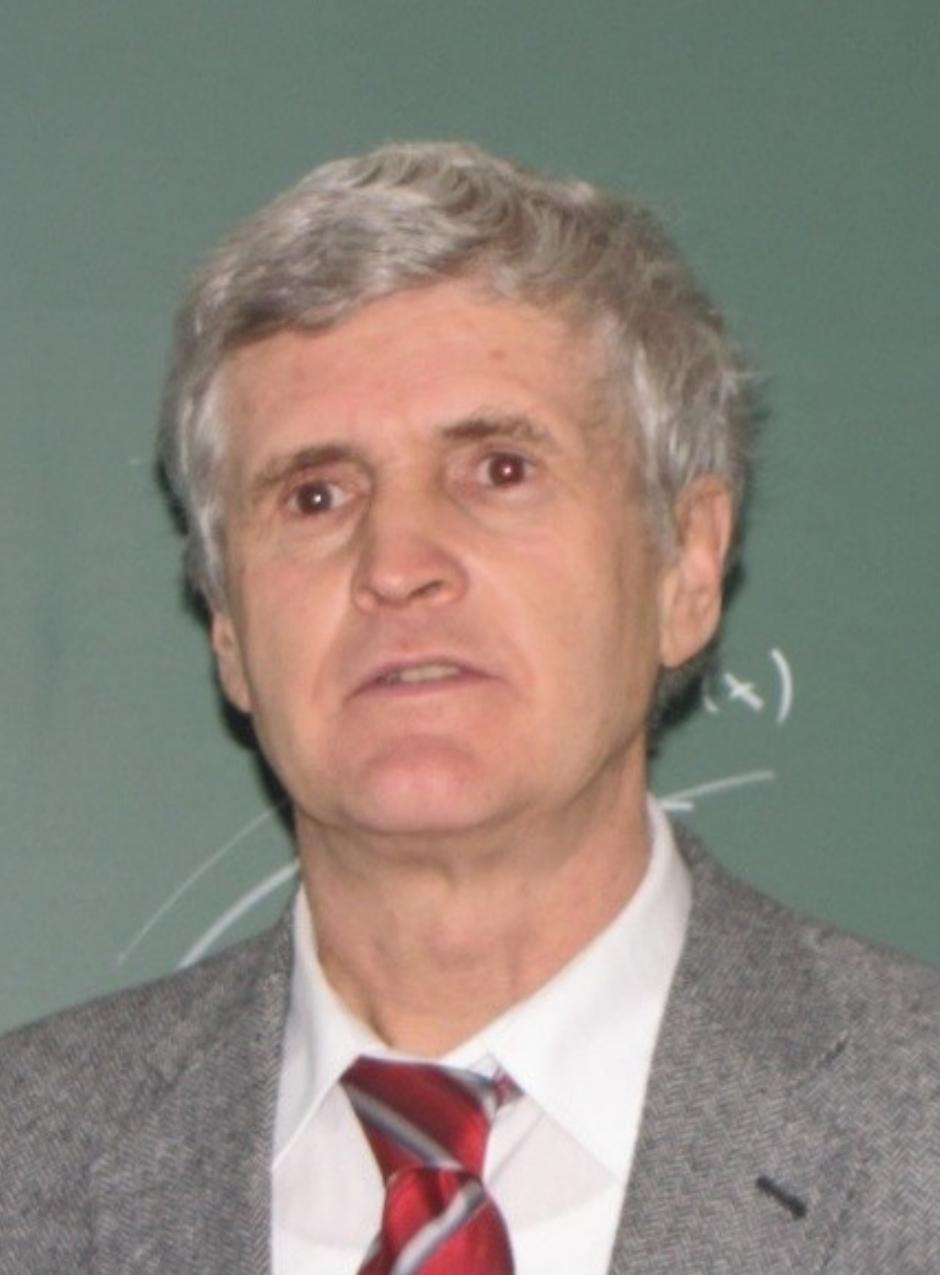
Antonín Novotný: Anelastic Oberbeck–Boussinesq equations
as a singular limit in the Navier–Stokes–Fourier system



Michael Růžička: On generalized newtonian fluids



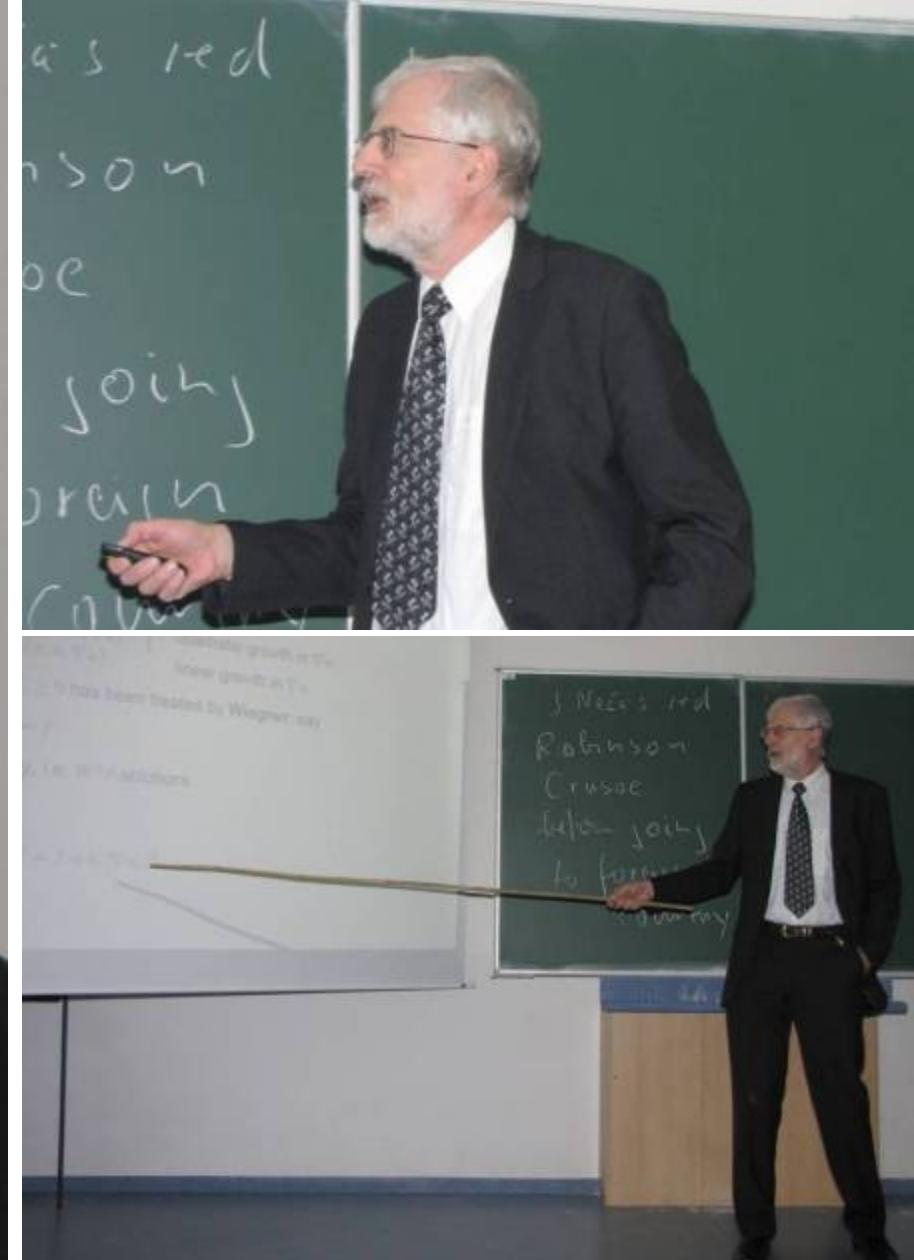
M. Kohr, G.P. Raja Sekhar, **Wolfgang L. Wendland**: On boundary integral equations for two-dimensional slow viscous flow past a porous body



Jan Franců: On two-scale convergence



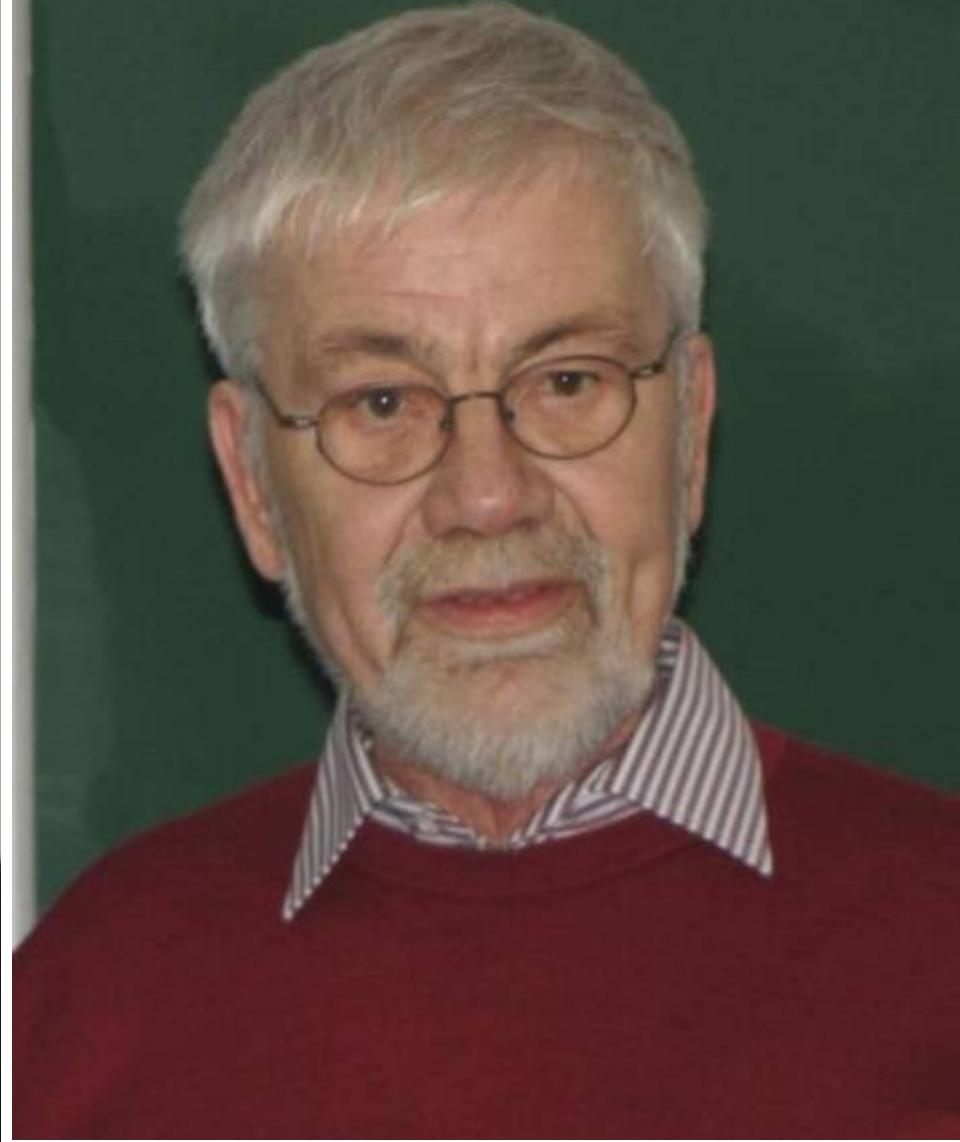
Tomáš Roubíček: Approximation techniques in rate-independent processes



Jens Frehse: Regularity results for nonlinear elliptic
and parabolic partial differential equations



Joachim Naumann: On weak solutions
to model problems for turbulent flows



Ch. G. Simader: A Stokes-like
system of fourth order



Mária Lukáčová: Numerical modelling of balance laws
with application in geophysics



Vladimír Souček: On prolongation of a class of overdetermined
semilinear systems of PDE's



End of the conference

Photos taken and compiled by Jan Franců