

New emeritus researchers Jiří Neustupa and Miroslav Šilhavý
Special seminar

Institute of Mathematics, Czech Academy of Sciences
Blue Lecture Hall, ground floor of the rear building
Tuesday, June 29, 2021

Everyone is welcome to be present personally. Connection via Zoom is also possible:
<https://cesnet.zoom.us/j/96985988917?pwd=ZnlZU3R6N1dMUDdacno4TUdHWm5ZQT09>
Meeting ID: 969 8598 8917
Passcode: 397274

PROGRAMME

10:00 Presentation of diplomas

10:10 Patrick Penel, University of Toulon (via Zoom)
Marvellous mathematical science: Short story to share our enthusiasm

Abstract: Jiří Neustupa is a mathem'artist for advanced higher level mathematics, contemplating all facets of Navier-Stokes equations for fluid flows. Finding new concepts is the art of the topologist and theorist of partial differential equations. After a few comments on the elegance and beauty of mathematics, I will mention the intense mathematical activity of my colleague and friend Jiří Neustupa. I also will make a brief review of the history of mathematical cooperation Toulon-Prague, quickly evoking some memories of this period.

10:50 Martin Kružík, Institute of Information Theory and Automation, CAS
Weak lower semicontinuity of integral functionals and applications to continuum mechanics

Abstract: Minimization is a recurring theme in many mathematical disciplines ranging from pure to applied. Of particular importance is the minimization of integral functionals, which is studied within the calculus of variations. Proofs of the existence of minimizers usually rely on a property of the functional called weak lower semicontinuity. While early studies of lower semicontinuity go back to the beginning of the 20th century, the milestones of the modern theory were established by C. B. Morrey, Jr. in 1952 and N. G. Meyers in 1965. We will show a few problems in continuum mechanics of solids where the weak lower semicontinuity or its lack plays a key role.

11:30 Closing

