



SEMINAR

Institute of Theoretical and Applied Mechanics
of the Czech Academy of Sciences
<http://www.itam.cas.cz/seminar>



Czech Society for Mechanics,
International Measurement Confederation,
and Institute of Theoretical and Applied Mechanics, CAS

invite you to lectures and discussion within the lecture series **ITAM Seminar**

9:30 **Petr Michálek, Ph.D. (ITAM)**: Analýza turbulence v atmosféře z dat meteorologické stanice Kopisty
(Analysis of turbulence in the atmosphere from data of Kopisty meteorological station)

Abstract: Příspěvek se zabývá analýzou dat ze sonických anemometrů a dalších měření na meteorologické stanici Kopisty u Mostu. Data z meteorologického stožáru vysokého 80 m byla využita pro výpočet tzv. integrálních turbulentních charakteristik, intenzit turbulence a spekter turbulence ve vybraných časových úsecích. Bude diskutován vliv stability atmosféry na analyzovaná data a představeny možnosti využití výsledků ve stavebnictví a územním plánování.

The presentation deals with the analysis of data from sonic anemometers and other measurements at the Kopisty meteorological station near Most. The data from the 80 m high meteorological mast were used to calculate the so-called integral turbulence characteristics, turbulence intensities and turbulence spectra in selected time periods. The influence of atmospheric stability on the analysed data will be discussed and the possible applications of the results in building and urban planning will be presented. (the lecture will be given in Czech)

10:30 **Pavel Zabrodin, Ph.D. (ITAM)**: Peculiarities of low-temperature plastic deformation of Al and Mg alloys
with modified microstructure

Abstract: The lecture covers the importance of studying deformation behaviour at cryogenic temperatures, including fundamental and applied aspects. Based on the author's findings, the report showcases how temperature (ranging from 0.5 K to 400 K) and microstructure (such as grain size, dislocation density, and texture) impact strength, ductility, strain hardening rate, localization of plastic deformation, relaxation behaviour, amplitude, and statistics of low-temperature jump-like deformation of micrograined Al and Mg alloys.

**The lectures will be held on Wednesday, October 11, 2023 at 9:30 AM
at ITAM, Prague, small lecture room.**

The lectures will be also streamed using the zoom platform

<https://cesnet.zoom.us/j/99431331782?pwd=ekZKdzViWkxEZ0E4QjVhNW10c3dVdz09>

Meeting ID: 994 3133 1782

Passcode: 657426