



MIMOŘÁDNÝ SEMINÁŘ ASTRONOMICKÉHO ÚSTAVU UK

Srdečně Vás zveme na mimořádný seminář našeho ústavu, který se koná v pátek **12.8.2016** od **10:10** v posluchárně **T1** v hlavní budově areálu Trója (V Holešovičkách 2, Praha 8). Přednášku na téma

On the Role of Elliptic Functions in Classical and Relativistic Celestial Mechanics

v anglickém jazyce prosloví

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Abstrakt přednášky:

Although once considered an essential part of the curriculum of physicists and engineers, elliptic functions have gradually faded from view throughout the 20th century, and they are only mentioned in passing in most standard (modern) textbooks on classical mechanics. In recent years, however, elliptic functions have been shown to be flexible and powerful tools for the study of dynamical systems in classical and especially relativistic mechanics.

In this talk we will first review a few basic elements of the theory of elliptic functions from the point of view of Weierstrass. We will then proceed to show how the Weierstrassian functions can be used to treat in an elegant and compact fashion various problems in celestial mechanics. We will focus in particular on the exact solutions of modified Keplerian problems and on the perturbative treatment (via Lie series) of the relativistic two-body problem.