

Univerzita Karlova
Matematicko-fyzikální fakulta

Vás zve na

Strouhalovskou přednášku

„EXPLOSIONS IN THE UNIVERSE“

kterou přednese

Mgr. Ondřej Pejcha, Ph.D.

(Ústav teoretické fyziky,
Matematicko-fyzikální fakulta
Univerzity Karlovy)

ve středu 4. března 2020 ve 14:00 hod.

v posluchárně Čeňka Strouhala (F1)
Praha 2, Ke Karlovu 5

Ondřej Pejcha (*1984) is a theoretical astrophysicist at the Institute of Theoretical Physics of MFF UK. He earned his M.Sc. in Theoretical Physics at MFF in 2008 and graduated with Ph.D. in astronomy from The Ohio State University in 2013. After that he was NASA Hubble and Lyman Spitzer Jr. Postdoctoral Fellow at Princeton University before moving back to MFF with PRIMUS grant in 2017. In 2018, he was awarded ERC Starting Grant to work on catastrophic interactions of binary stars. His research interests cover theoretical and computational astrophysics, and application of “big data” techniques in time-domain astronomy.

Recent detection of gravitational waves from merging black holes and neutron stars opened a new window for studying the Universe and further accelerated the tremendous progress in multi-wavelength time-domain astronomy. This talk will review exciting new developments in the quest for uncovering the origin of chemical elements in the Universe and understanding the birth of neutron stars and black holes. These major unsolved astrophysical problems are associated with some of the most luminous explosions and involve a wide range of physics such as nuclear matter at high densities, neutrinos, strong magnetic fields, and formation of dust and molecules.