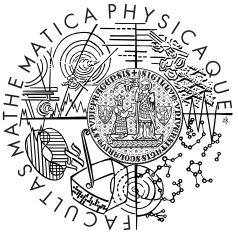

MIMOŘÁDNÝ SEMINÁŘ ASTRONOMICKÉHO ÚSTAVU UK

Srdečně Vás zveme na mimořádný seminář našeho ústavu, který se koná v pátek **5.8.2016** od **10:10** v posluchárně **T1** v hlavní budově areálu Trója (V Holešovičkách 2, Praha 8). Přednášku na téma

The Old Nuclear Star Cluster in the Milky Way: Dynamics, Mass, Statistical Parallax, Black Hole Mass and Dust Extinction

v anglickém jazyce prosloví

Sotiris Chatzopoulos

z Akademie v Aténách v Řecku.

Abstrakt přednášky:

A star cluster in general is a group of stars that is gravitationally bound. Star clusters vary in size and shape and they can be distinguished in two categories: open and globular. Open star clusters typically contain up to a few hundred of stars and they tend to be young and irregularly shaped. In contrast globular clusters are old more compact (and subsequently more spherical) and contain up to a million members. Nuclear star clusters (NSC) like globular clusters are compact conglomerations of stars located at the centers of most spiral galaxies. In addition a NSC is more luminous and more massive than a globular cluster and hosts in its center a super-massive black hole of several million solar masses.

New constraints are derived on the mass, rotation, orbit structure and statistical parallax of the Galactic NSC and the mass of the super-massive black hole. For this ∼10000 proper motions, ∼2500 line-of-sight velocities, and star counts from Fritz et al. (2014) obtained with VLT instruments are used. For the first time a NSC model is presented with orbital structure that gives a very good match to the observed velocity dispersion profiles as well as the proper motion and line-of-sight velocity histograms, including the double-peak in the v_l-histograms. In addition, for the first time a measurement of dust extinction within the NSC is presented.

Jaroslav Haas, Attila Mészáros