Seminarium Astrofizyczne wtorek 13.11.2018 godz. 12:30 Hoża 69 pawilon sala 22

Grzegorz Pietrzyński

(Centrum Astronomiczne im. Mikołaja Kopernika PAN)

The Araucaria project. Toward precise and accurate determination of the Hubble constant based on eclipsing binaries, Cepheids, and SN Ia.

I will present our distance measurement to the LMC accurate to 1%. This determination allows to determine the Hubble constant with a precision of 2 %, which has a very strong impact on one of the most important problems in cosmology - the discrepancy of recent determinations of H_0 (e.g. Planck mission versus Cepheids and SN Ia method). It is also important for many fields of modern astrophysics. I will discuss how to improve the classical method of H0 determination based on Cepheids and SN Ia to deliver 1% accuracy, which would definitely solve the discrepancy problem. In this context I will present Polish observatory located next to E-ELT telescope in Chile.

Serdecznie zapraszam, Agnieszka Majczyna