

## **Bartłomiej Zgirski - Calibration of RR Lyrae stars as distance indicators. New reddening maps of the Magellanic Clouds.**

*Wednesday, June 12, 2019 3:20 PM (20 minutes)*

In my talk, I will present preliminary results obtained using optical and near-infrared telescopes from Cerro Armazones and different spectrographs from observatories located in Chile. Results concern calibration of the Baade-Wesselink method (infrared surface-brightness method) and Galactic period-luminosity relation for RR Lyrae stars in the proximity of the Sun. These calibrations are crucial for future precision measurements to different groups containing old (type II) stellar population such as globular clusters, dwarf galaxies, galactic haloes, etc.

In the second part of the talk, I will present new reddening maps of the Magellanic Clouds. Such maps are crucial for measuring energetics of any phenomenon that occurs in the MCs and thus for precision calibration of distance indicators.

**Primary authors:** ZGIRSKI, Bartłomiej (Nicolaus Copernicus Astronomical Center PAS); Dr GÓRSKI, Marek (Universidad de Concepción); Prof. PIETRZYŃSKI, Grzegorz (Nicolaus Copernicus Astronomical Center (PAS))