A SYNOPTIC VIEW OF THE MAGELLANIC CLOUDS: VMC, GAIA AND BEYOND

ESO-HQ, GARCHING BEI MÜNCHEN, GERMANY September 9-13, 2019

Calibrations of the TRGB absolute magnitude

Gorski Marek, Universidad de Concepcion

Tip of the red giant branch is one of the most important distance indicators. Distances obtained with this standard candle are particularly important in extragalactic distance scale, and as a consequence, allows to calculate the value of the Hubble constant. I will present empirical calibrations of the absolute magnitude of the tip of the red giant branch in the optical and near-infrared bands based on the measurements in the Large and Small Magellanic Clouds. I will discuss main uncertainties and systematic errors associated with this method, like reddening and population effects. Finally, I will discuss possible improvements of this method.