



Contribution ID: 28

Type: Talk

The TRGB-SBF Project: a Pop II path to H_0

Tuesday 24 June 2025 11:10 (40 minutes)

The path from Cepheid variables to type Ia supernovae gives a value of the Hubble constant which significantly disagrees with the value determined from observations of conditions in the early universe and a cosmological model. A totally independent measurement of H_0 from observed redshifts and distances is needed to evaluate the possibilities of systematic errors. A path is being explored that should be as accurate or better than the Cepheid-SNIa way, involving only observations of old evolved stars. Gaia parallaxes ground the absolute values of RR Lyrae stars that establish the absolute magnitudes of stars at the tip of the red giant branch that sets the scale of the power spectrum of surface brightness fluctuations in E/S0 galaxies that are observed with negligible confusion from peculiar velocities. Observations with JWST are fundamental for the success of this program.

Primary author: TULLY, Brent (University of Hawaii)

Presenter: TULLY, Brent (University of Hawaii)

Session Classification: Morning session 2