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# Increasing Accuracy in the Measurement of H0

*Friday, 9 September 2022 18:00 (30 minutes)*

The Tip of the Red Giant Branch (TRGB) marks the luminosity at which the core helium flash in low-mass stars occurs, and provides a high-precision and accuracy standard candle. As such, the TRGB offers a critical, independent route to the measurement of Ho. Applied in the halo of galaxies, the TRGB method has a number of advantages: there is negligible extinction by dust, and it has little sensitivity to metallicity and to crowding/blending effects. A Chicago Carnegie Hubble Program (CCHP) calibration of SNe Ho based on HST TRGB measurements yields a value of Ho = 69.8 with an accuracy of 2.5%. A new and upcoming program with the James Webb Space Telescope will measure distances to the same galaxies using the TRGB, Cepheids and carbon stars, and provide robust constraints on current systematics in the measurement of Ho.

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