

Calibration of the tip of the red giants branch using GAIA dr2

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The Tip of the Red Giant Branch (TRGB) is proved as an excellent distance indicator, based on old stellar populations. GAIA data release 2 allows us to calibrate a zero point of TRGB using direct distance measurements of red giants in our Galaxy. In this work we show how to construct the color dependence of TRGB using data of SDSS and Pan-STARRS surveys. The main uncertainty is associated with the transformation of photometric systems, the accuracy of parallax measurements and the correction for Galactic extinction.