

Abstract Submitted
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A Study of Z Mic, an RR Lyrae Star¹ JOSHUA MICKELSEN, Westminster College (Utah) — The ability to measure the distance to stars has shown to have a lot of error that differs among the method used. A Cepheid variable star is used as a standard candle through a known period-luminosity relationship but is unknown if RR Lyrae stars can also be used as standard candles through their own theoretical period-luminosity relationship. The focus of this project was to determine if the distance derived from a theoretical period-luminosity relation matches the distance measured by the GAIA survey using stellar parallax. Concerning the star Z Mic, the distance obtained from the period-luminosity relation was found to be in agreement with the GAIA survey, showing that in some cases the period-luminosity relation of RR Lyrae stars can be used to find the distance to standard candles.

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