

Abstract Submitted
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Estimating the Distance and Metallicity of an RR Lyrae Star

SHOUVIK BHATTACHARYA, APS — Minnesota State University Moorhead has a working observatory and recently renovated named the Paul P Feder Observatory at the Buffalo River State Park in the Northwest Minnesota. The observatory is equipped with a 16” Cassegrain reflecting telescope, an Apogee Alta CCD camera, two research grade computers and the SBIG SGS Spectrograph, which was installed in the observatory facility in fall 2012. The student researcher used the facility and made photometric and spectroscopic observations of the RR Lyrae stars. The distance of the RR Lyrae star was estimated by analyzing the photometric data, extracting information about period and measured quantify brightness from the observed science images. High resolution spectroscopy was performed on the same star and its applicability to metallicity estimation will be reported.

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