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Study of Pulsation Properties of LPVs in NGC 6553 ELISABETH KAGER, Bowling Green State University, ANDREW LAYDEN, Bowlilng Green State University — Long period variable stars (LPVs) are red giants or supergiants that vary in brightness as they pulsate radially. Their periods range from months to several years, and amplitudes can be many magnitudes. Studying these pulsation properties of LPVs as a function of position on the giant branch helps to constrain models of stellar structure, evolution, and pulsation. Studying LPVs in environments with known metallicity, age, and distance allows us to control these variables; globular clusters are an excellent environment. This study targets the metal-rich ([Fe/H] = -0.2), globular NGC 6553. We have acquired a time sequence of images using the CTIO 0.9-m telescope, and are gathering more data with the 0.4-m PROMPT telescope. We herein present our experimental methods and goals for the project.

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