Abstract Submitted for the CAL13 Meeting of The American Physical Society

Aperture Photometry at Sonoma State using GORT¹ AMANDEEP GILL, KEVIN MCLIN, Sonoma State University — The study of active galactic nuclei (AGN) is important to the understanding of the evolution of the universe. One type of radio-quiet AGN are quasi-stellar objects (QSOs). Taking QSO observations over many nights enables one to establish a baseline luminosity and to search for variability. Over the summer of 2013 I conducted research supported by SSU's Hichwa Assistantship award studying known QSOs to search for variability. My photometric observations used the NASA-funded GLAST Optical Robotic Telescope (GORT) at the Pepperwood Preserve. GORT is a 14" aperture telescope that is fully computer controlled, with a CCD and filter wheel. For my project, I used the visual, red, and infrared filters. The images taken by the CCD were stacked and reduced to correct for biases, dark levels, and the respective flat fields for each filter. The goal was to track the same few objects all summer and determine trends for each quasar's brightness. As I continue to work on this project during the fall semester I will shift to different target objects and continue the photometric data acquisition and analysis.

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