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Cloud Computing with Context Cameras

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We summarize plans to monitor, calibrate and validate photometric observations with our autonomous, robotic network of 2m, 1m and 40cm telescopes. These are sited globally to optimize our ability to observe time-variable sources.

Wide field "context" cameras aligned with our network telescopes cycle through BVriz filters spanning our optical range every ~2 minutes, measuring instantaneous throughput (transparency) against Tycho and (occasionally) primary standards. Similar "flash" measurements are made for all science images, but matched against fewer standards in our telescope fields of ~0.5 degrees.

Summary

Comprehensive transparency measurements (cf. SkyProbe) can be used to inform and calibrate our data, to characterize, monitor and inter-compare our sites and equipment, and to select photometric periods when traditional calibrations of Target against Standard fields can be optimally and automatically performed.

We summarize our attention to system bandpass measurements including atmosphere, mirrors, filters and detectors, modeled and measured calibrations of our system bandpasses against UBVRI and ugriz standard systems, our attention to baffling and flat-fielding for optimal instrument signature removal, and preliminary results from our test facility in CA.

Primary authors: Dr PICKLES, Andrew (LCOGT Las Cumbres Observatory Global Telescope); Prof. ROSING, Wayne (LCOGT)

Presenters: Dr PICKLES, Andrew (LCOGT Las Cumbres Observatory Global Telescope); Prof. ROSING, Wayne (LCOGT)

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