

Astrometric and Photometric Calibrators for the 4-m International Liquid Mirror Telescope

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Abstract

The International Liquid Mirror Telescope (ILMT) is a 4-meter class survey telescope. It achieved its first light on 29th April 2022 and is now undergoing the commissioning phase. It scans the sky in a fixed wide strip centred at the declination of and works in *Time Delay Integration* (TDI) mode. We present a full catalog of sources in the ILMT strip derived by crossmatching *Gaia* DR3 with SDSS DR17 and Pan-STARRS-1 (PS1) to supplement the catalogue with apparent magnitudes of these sources in *g*, *r*, and *i* filters. These sources can serve as astrometric calibrators. The release of *Gaia* DR3 provides synthetic photometry in popular broadband photometric systems, including the SDSS *g*, *r*, and *i* bands for ~ 220 million sources across the sky. We have used this synthetic photometry to verify our crossmatching performance