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Synergies with LSST

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Over the next decade the Legacy Survey of Space and Time (LSST) at the Vera Rubin Observatory will collect time-series multiband photometry reaching 5 magnitudes fainter than Gaia's limit (G~20.7 mag) in photometry and about 3 mag deeper in astrometry.

The LSST will thus form Gaia's deep complement in the south hemisphere in preparation for Gaia-NIR that is expected to extend the astrometric achievements of Gaia to astronomical sources that are visible in the NIR, allowing to probe deeper through the Galactic dust in the MW disc, the spiral arms and the bulge region, at the same time maintaining the accuracy of the Gaia optical reference frame and improving the stellar parallax and proper motion accuracy by revisiting the astronomical sources about 20 years after Gaia.

I will discuss synergies between Gaia, LSST and Gaia-NIR particularly in the field of stellar variability and pulsating stars as standard candles and stellar population tracers.

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