A SYNOPTIC VIEW OF THE MAGELLANIC CLOUDS:
VMC, GAIA AND BEYOND

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The Magellanic Clouds with LSST

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The Large Synoptic Survey Telescope (LSST) will provide a massive optical imaging dataset covering roughly half the sky with over ten years of repeated observation in ugrizY. The telescope is under construction, with the survey scheduled to enter full operations in 2023. LSST has a unique role to play in surveys of the Clouds. First, its large AΩ can probe the thousands of square degrees that comprise the extended periphery of the Magellanic Clouds with unprecedented completeness and depth, allowing us to detect and map their extended disks, stellar halos, and debris from interactions with high fidelity. Second,its ability to map the entire main bodies in only a few pointings can allow us to identify and classify their extensive variable source populations with high time and areal coverage, discovering, for example, extragalactic planets, rare variables and transients, and light echoes from explosive events that occurred thousands of years ago. I will describe the science case for observing the Magellanic Clouds with LSST and the proposed adjustments to the LSST survey footprint and observing cadence that will be needed to ensure that LSST Magellanic Clouds science may be achieved.