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

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The VISCACHA survey: an overview

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The VISCACHA (VIsible Soar photometry of star Clusters in tApii and Coxi HuguA) Survey is an ongoing project based on deep and spatially resolved photometric observations of Magellanic Cloud star clusters, collected using the SOuthern Astrophysical Research (SOAR) telescope together with the SOAR Adaptive Module Imager. Since 2015 more than 300 hours of telescope time were used to observe about 150 stellar clusters, most of them with low mass (M $< 10^4 M_{\odot}$) and/or located in the outermost regions of the Large Magellanic Cloud and the Small Magellanic Cloud. With this high quality data set, we homogeneously determine physical properties from statistical analysis of colour-magnitude diagrams, radial density profiles, luminosity functions and mass functions. Ages, metallicities, reddening, distances, present-day masses, mass function slopes and structural parameters for these clusters are derived and used as a proxy to investigate the interplay between the environment in the Magellanic Clouds and the evolution of such systems. In this talk we present the VISCACHA Survey and its initial results. The project's long term goals and legacy to the community are also addressed.