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

ESO-HQ, GARCHING BEI MÜNCHEN, GERMANY
September 9-13, 2019

Panchromatic study of the SMC Shell region: How young is this tidal feature?

Subamaniam Annapurni, Indian Institute of Astrophysics

The effect of environment in the formation and evolution of galaxies is one of the important questions in the field of extragalactic astronomy. Together, the Milky Way, LMC and SMC comprise a system which is an example of an early-phase minor merger event. The study of the Magellanic system provides valuable insights into our understanding of the main processes driving galaxy formation. Gas present in the MCs responds to the interactions immediately, resulting in star formation or tidal stripping of the gas from the system. The Shell region in the SMC, (also, loop or arm B), is rich in blue supergiants and HII regions which has a similar morphology to those of other tidal features recently reported in the northern outskirts of both the LMC. The morphology of the Shell, as traced by main-sequence stars from the NIR to far-ultraviolet, indicates that it is the result of tidal interactions. We combine the UV data from the UltraViolet Imaging Telescope with optical and near-IR data to i) trace the tidal features and their connection to the main body of the SMC (ii)estimate the age