

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

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

**VMC proper motions of the
Magellanic Bridge and the outer LMC**

**Schmidt Thomas, Leibniz-Institut für Astrophysik
Potsdam (AIP)**

The Large and Small Magellanic Cloud (LMC and SMC) are the most luminous dwarf galaxy satellites of the Milky Way. Thanks to their proximity (50-60 kpc), they provide one of the best opportunities to study in detail the kinematics of resolved stellar populations in an interacting pair of galaxies. Extensive photometric surveys like the ongoing Gaia mission and the near-infrared VISTA survey of the Magellanic Cloud system (VMC) will have a significant impact on our insight into the Magellanic system, but even comprehensive surveys have their limits. Full-scale proper motion measurements and their analyses across the Magellanic Clouds are still a major challenge. I have combined the individual strengths of VMC and Gaia DR2 data to gain a better insight into the kinematics of the system. In this contribution, I will present results from my ongoing project dedicated to measure and analyse the proper motions of samples of stars across the Magellanic Bridge, confirming the tidal stripping of the SMC predicted by dynamical N-body simulations and in the outer regions of the LMC where a clear rotational pattern is present.