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

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

YMCA survey: probing the outer regions of the Magellanic system with VST.

Ripepi Vincenzo, INAF-Osservatorio Astronomico di Capodimonte

The Magellanic Clouds (MCs) are the closest example of interacting galaxies and represent a primary benchmark to understand the formation, via accretions, and evolution of the Milky Way galaxy halo. Here we present the project "YMCA (Yes, Magellanic Clouds Again): probing the outer regions of the Magellanic system with VST", a survey to study the outskirts of the MCs using the VST. We aim to image an area of 110 deg sq. in g', and i' to g'~24-24.5 mag with S/N=5 (AB). These data are deep enough to reach 1-2 magnitudes below the main sequence turn off of the oldest stellar populations. Our observations allows us to fill the gap left by other ongoing or planned surveys in the surroundings of the MCs, permitting to study in detail the star formation history and the extended structure of the MCs outskirts. Moreover, our images serve to search for star clusters (see contribution by M. Gatto) and faint satellites possibly associated to the MCs. At present the survey is completed at 65%; in this poster we present the first qualitative study of the stellar populations in the outskirts of the MCs.