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

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Chemical abundances across the first kpc of the LMC

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The chemical evolution of the Large Magellanic Cloud (LMC) yields information on many different aspects of low-mass disc galaxy evolution, and the evolution of an interacting system. It is a complementary approach to that of understanding the star formation history of this galaxy, and over the last two decades, the amount of stars with high-quality radial velocities and chemical abundances has kept increasing, going from few luminous supergiants to hundreds or thousands of fainter giant stars. Using mediumresolution (R~20000) spectra from FLAMES at the VLT, we obtained the detailed chemical abundances of more than 250 LMC RGB stars, spread in three fields within the first 2 kpc of the LMC. I will discuss our results in the context of the chemical evolution of the LMC. In particular, our alpha abundances exhibit the canonical alpha-pattern with a knee likely located below [Fe/H] ~ -1. Our results seem at odds with recent APOGEE trends.