

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

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**Faint and ultra-faint dwarf satellites
of the LMC in the FIRE**

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Within LCDM, dwarf galaxies like the Large Magellanic Cloud are expected to host many dark matter subhalos, several of which should be massive enough to host faint dwarf companions. Recent GAIA proper motions have confirmed new members of the LMC-system including three classical Mstar $> 10^5$ Msun dSph as well as several ultra-faint dwarfs with other candidates awaiting additional kinematic data. We use the FIRE simulations to study the dark and luminous substructure population of isolated LMC-like hosts and place the GAIA results in a cosmological context. By comparing number counts of subhalos in runs with and without baryons, we find that the substructure depletion in these low mass hosts is almost negligible, contrary to what is found on Milky-Way scales. For our highest resolution runs, 7 of the dark matter subhalos form galaxies with Mstar $\geq 10^4$ Msun, in good agreement with the 5 observationally inferred pre-infall satellites of the LMC. Our simulations suggest different structural properties of LMC-associated ultrafaints than interpreted from observations, raising questions regarding the association to the LMC of a couple orbitally consistent dwarfs.