

HRMOS can illuminate globular cluster contributions to halo assembly

Thursday, 21 October 2021 11:20 (15 minutes)

I will discuss the potential for HRMOS in studying the stars that are escaping from globular clusters into the halo field through streams or extratidal structures. These stars allow us to address questions of globular cluster origins, abundance anomalies, and chemical tagging, as well as dynamics, mass loss, and dark matter. The large-scale spectroscopic surveys planned for the 2020s will collect $R \sim 20,000$ spectra for some of these stars, but there will be room to expand on the information they will gather. In addition, future Gaia data releases and LSST imaging will reveal new candidate extratidal structures. HRMOS will make it possible to investigate these candidates thoroughly, and to directly compare across a wider range of environment by observing near globular clusters and nuclear star clusters in Local Group dwarf galaxies. I will discuss the science gains to be had in observing these stars with higher resolution, higher RV precision, a multiplex of 50-100, and an 8m telescope.

Type

contributed talk

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