

COLLEGE OF THE HOLY CROSS

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Satellite galaxies (galaxies which are gravitationally bound to a more massive host galaxy) are regarded as cosmological and astrophysical probes of dark matter on small-scales. The discovery and characterization of satellite galaxy systems is among the most important goals in the field of extragalactic astrophysics. Though much effort has been made in searching for satellite galaxies around Milky Way-mass hosts, the sample of satellites around lower-mass hosts is much less understood. I am presenting the results of an ongoing campaign to establish a statistical sample of satellites around Large Magellanic Cloud and Small Magellanic Cloud mass hosts (stellar mass between 10^8 to 10^{10} solar masses). This work provides quantitative constraints for galaxy formation models and a benchmark for simulations to try and reproduce the observed satellite galaxy population.