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The Fates of Star-Forming Satellites Around the Milky Way¹ DEBOSMITA PATHAK, CHARLOTTE CHRISTENSEN, ALBERTO MUNOZ, Grinnell College, COURTNEY CARTER, Columbia University — Why do the Milky Way and Andromeda host so few star-forming satellites, in contrast to the Milky Way-analogues of the SAGA-II survey? Differences in which satellites survive and which get disrupted by the host halo environment directly impacts what satellites we observe. To that end, this project analyzes the infall properties of the surviving and disrupted satellites around four high-resolution simulated Milky Way analogues to understand which satellites survive and which get disrupted. We find that progenitors that are massive enough to sustain star-formation after infall are preferentially disrupted by the host. Earlier infall times and lower tangential velocity components at infall also contribute to the preferential disruption of some satellites. Looking at the full sample of surviving and disrupted satellites around the Milky Way can give us perspective on how unique the Milky Way’s satellite population is and the processes that were necessary to produce this distribution.

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