

X19a A Pristine View of Extended Globular Cluster Structures

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An exciting recent development in Galactic Astronomy has been the discovery that several Milky Way Globular Clusters (GCs) possess significantly extended structures, sometimes reaching out to a few hundred parsecs (corresponding to many half-mass radii). The number of GCs with extended structures (either in the form of tails or spherical diffuse envelopes) is unknown but has grown since the release of the Gaia Space Mission. The Gaia mission has transformed our view of these low-density structures, enabling member stars to be efficiently and reliably separated from the dominant foreground/background contaminant populations. However, Gaia lacks metallicities for many of the stars found in and around GCs. The Pristine survey provides metallicities for millions of stars, complementing the astrometric data from Gaia, and offers the opportunity to explore the stellar populations and the physical shape at the tidal radius and beyond for many Milky Way GCs. In a previous contribution, we discussed our results with respect to NGC 5139. In this contribution, we explore the morphologies of 30 GCs at the tidal radius and beyond, comparing our results to the eTidalGCs N -body models of disrupting GCs. Additionally, we will provide an updated view of stellar populations of GC stars in the peripheries, and where PFS will play a significant role in the future of GC peripheral explorations.