
[7GC-05] Old Halo GCs with Retrograde Rotation as Tidal Debris of the Omega Centauri

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The globular cluster omega Centauri is generally considered as a disrupted nuclei of a dwarf galaxy which merged into the Milky Way Galaxy. If the omega Centauri is indeed the remnant of a dwarf galaxy, the tidal debris associated with it is expect. This, however, is yet to be identified. Here we show that seven old halo GCs with retrograde rotation are kinematically coherent with omega Centauri, which suggest that they might be tidal debris from the parent dwarf galaxy of omega Centauri.

[8GC-06] Geometry of Recent Star Formation within Early-type Galaxies and its Impact on the Fundamental Plane

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The Fundamental Plane of early-type galaxies is one of the most important keys to understanding formation and evolution of early-type galaxies. Recent GALEX observations reveal enhanced UV fluxes from an unexpectedly large fraction of early-type galaxies in the local universe ($z < 0.2$), which has been interpreted as evidence for the presence of recent star formation. These findings allow us to explore the systematic impact of young (< 1 Gyr) stellar population on the various scaling relations. Here we have examined the physical characteristics of the recent star formation activities, and investigated their influence on the FP. We find that, contrary to the conventional view, the recent star formation activities can hardly affect the tilt and even the thickness of the FP. It is suggested that the geometry effect (i.e., the variation in the radial concentration) of new-born stars within each galaxy is the main driver behind the conservation of the slope and scatter of the FP of early-type galaxies with various recent star formation histories.