## **Annual Scientific Meeting & Harley Wood School**



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## The Fate of Globular Cluster Substructure: From Accretion to Diffusion in Galaxy Halos

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Globular clusters (GCs) are key tracers of galaxy assembly, providing crucial insights into stellar halo formation. Using the Feedback in Realistic Environments (FIRE) simulations with a post-processing GC formation model, we investigate the accretion of GCs from dwarf galaxies into Milky Way-mass hosts and the processes that shape their kinematic evolution. We explore how changes in the gravitational field in conjunction with the destruction of GCs drives the diffusion of substructure. By quantifying diffusion timescales and measuring GC migration distances in kinematic space, we evaluate how effectively GC kinematics can be used to reconstruct past merger events.

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