

LESSONS FROM TIDAL DEBRIS IN THE HALO OF THE MILKY WAY

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The number of known tidal debris streams in the Milky Way's halo has recently grown every year, particularly from analysis of SDSS/SEGUE data. In time we expect these streams will elucidate the merger history of the galaxy and allow us to determine the shape of the Milky Way's dark matter halo. Sometimes poor understanding of the observational data have led to misconceptions, controversies, or ambiguities in determining halo substructure. I will show examples of how tidal debris streams are beginning to constrain the Galactic potential. I argue that there is a need for more data, and in particular at least an order of magnitude or more spectra of Galactic stars. I present a plan for US Galactic astronomers to participate in the Chinese LAMOST project. The LEGUE survey associated with this project will carry out a spectroscopic survey of millions of Galactic stars starting in 2011.