
High-Precision Astrometry of Small Stellar Systems

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Abstract

Proper motions provide valuable information about the orbits of dwarf galaxies and globular clusters around their host galaxies, and about their internal kinematic processes. Hubble and Gaia have provided proper motions that have transformed our understanding of the nearby universe, and JWST is set to further expand our knowledge. But even these fantastic observatories have their limitations. I will talk about the current state-of-the-art in high precision astrometry and some recent results, and then discuss what remains out of reach, what even higher-precision astrometry would enable, and what more we need to consider beyond precision.

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