

## Halos of Elliptical Galaxies: NGC 4697, a case study

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DM in spiral galaxies has long been inferred from measurements of HI velocities and other techniques. Lack of bright mass tracers in halos of elliptical galaxies made any such observations difficult in the past. Recently, Globular Clusters (GC) and Planetary Nebulae (PNe) are being increasingly used to trace DM distribution in outer regions of ellipticals. Results from our dynamical study of galaxy NGC 4697, using integrated light and PNe velocities seem to suggest an apparent lack of DM in the halo of this galaxy. Using stellar photometry and line kinematics, we construct a (self-consistent) N-body model of the galaxy. Observed PNe radial velocities in the halo of the galaxy are used to obtain the underlying smoothed mean velocity and dispersion fields, which are then compared with the N-body model. Presence of large scale DM would be evident from a high value of mass to light ratio, which we do not find. Possible implications of this result are commented.

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