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Identifying the Tidal Disruption of Globular Clusters in cuspy halos

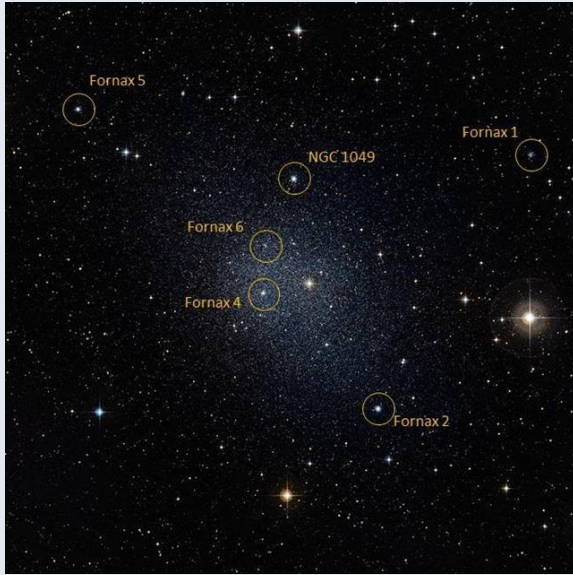
Inbar Havelio

Weizmann Institute of Science

With Kfir Blum and Nativ Ben Yeda

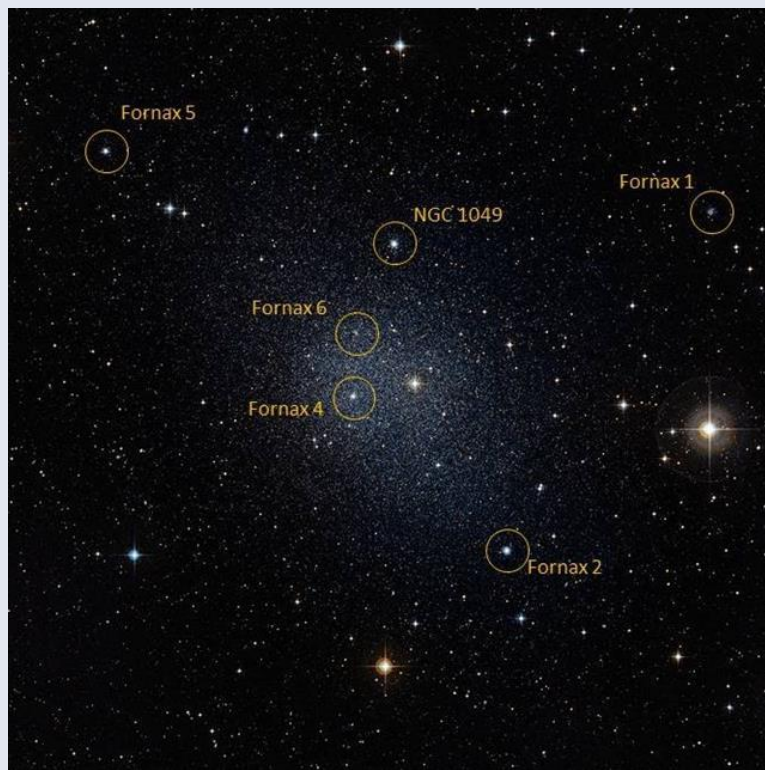


Globular Clusters in a cuspy halo



An image from ESO digitized sky survey 2, along with the 6 Fornax GCs

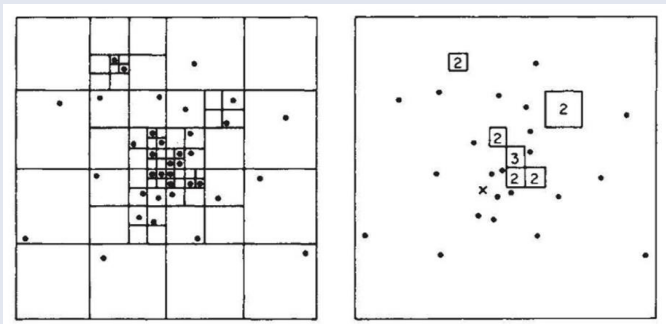
- The goal: Understanding how globular clusters (GCs) are affected by Dark Matter.
- The approach: N-body simulation of a GC spiraling towards the inner halo of a galaxy.
- The aftermath: Uncovering Dark Matter uncertainties in the center of galaxies.



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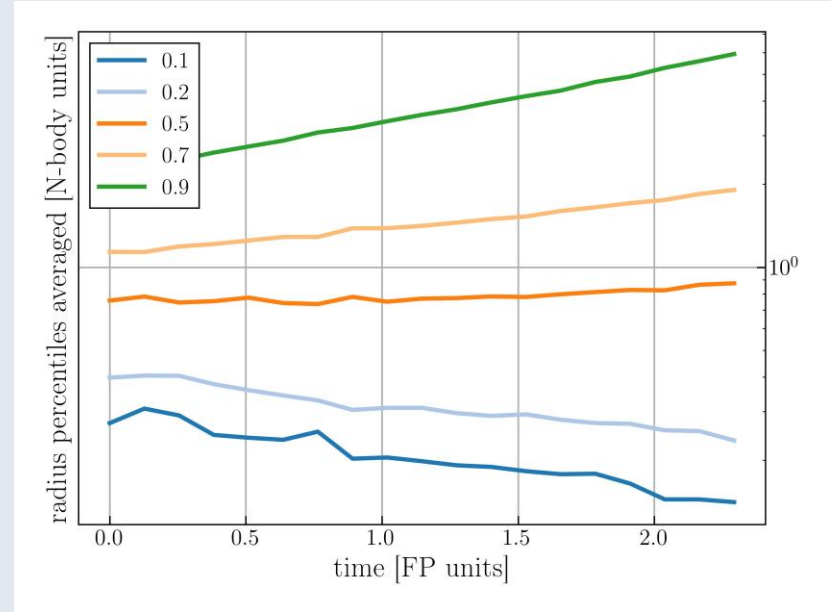
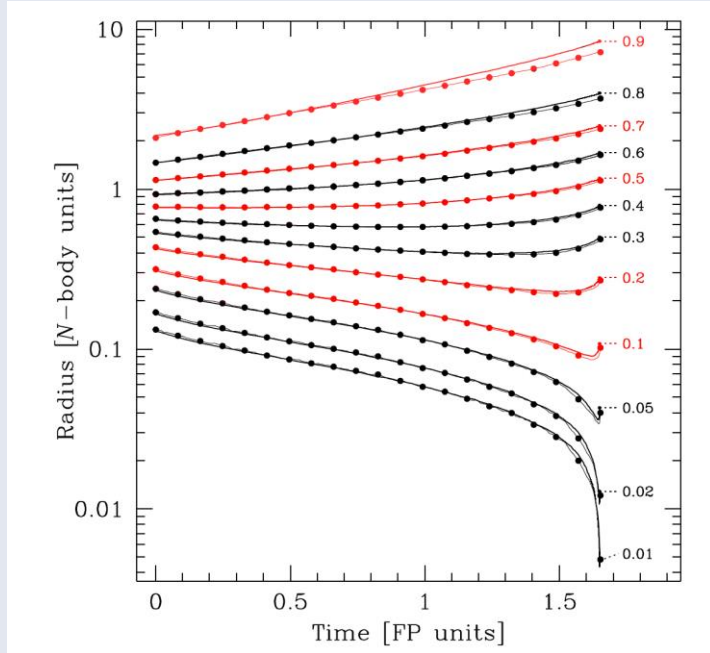
$$f(r, v) = \frac{1}{\sqrt{8\pi^2\rho(r)}} \int_0^\epsilon \frac{d\Psi}{\sqrt{\epsilon - \Psi}} \frac{d^2\rho}{d\Psi^2}$$



Tree code Method, Josh Barnes & Pier Hut (1986)

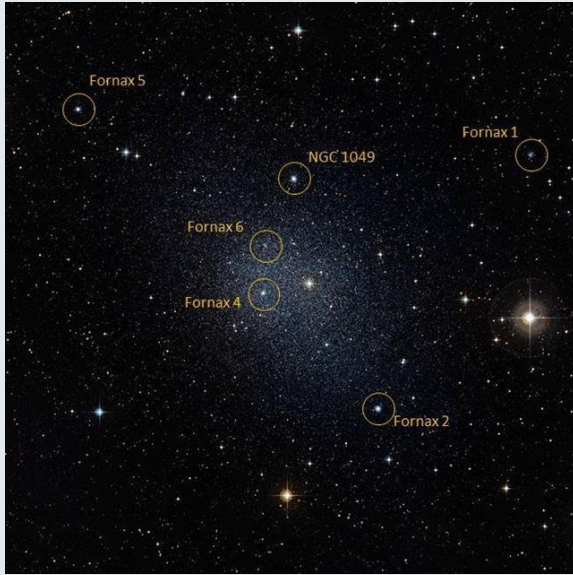
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Simulation results



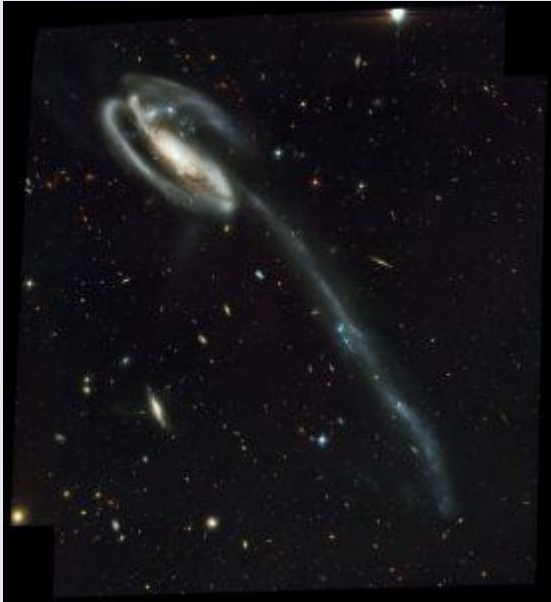
Freitag, Rasio & Baumgardt (2006)

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Thank You!

Questions?

Contact: inbar.havilio@weizmann.ac.il