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# No evidence for Keplerian taper of far-out galactic rotation

by Adriana Bariego Quintana, Felipe J. Llanes-Estrada

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Plaza de las Ciencias, 1 28040 Madrid, Spain
www.ucm.es/iparcos/

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# Abstract

We present a statistical analysis of the 175 SPARC galactic rotation curves to test the hypothesis of whether the Keplerian velocity tapering at large radii (v(r) ~ 1/ sqrt(r)) of the Navarro-Frenk-White (NFW) halo model holds.
The null hypothesis is Rubin's flat-rotation curve, v(r)=constant -such as can be obtained from a spherical, isothermal-like density profile, or alternatively with a very prolate halo.
To decide whether we adopt the null (Rubin behaviour) or alternative (NFW behaviour) hypothesis, we evaluate the derivative in each galaxy of v(r) with its last data points. We conclude that the data is presently compatible with the null hypothesis -no taper off, no decline of v(r) is seen.

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