

Abstract Submitted
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The Universal NFW Dark Matter Halo of Simulated Dwarf Galaxies SYED SALIK, CASEY WATSON, Millikin University — Analyzing the results of recent N-body simulations, we find that there is an approximately universal, initial, NFW dark matter halo for dwarf galaxies, with concentration parameters ranging from $8 < c < 15$ and a corresponding virial mass of $2.5 + 0.5 \times 10^9 M_{\odot}$. Using additional relationships between the core and virial masses of simulated dark matter halos, we determine the scale radius and central density values of the universal density profile: $r_s = 2.25 + 0.35 \text{ kpc}$ and $\rho_s = 1.4 + 0.35 \times 10^{-2} M_{\odot} \text{ pc}^{-3}$.

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