

Self-Interacting Dark Matter and Diverse Galactic Rotation Curves

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Astrophysical observations, spanning dwarf galaxies to galaxy clusters, indicate that the dark matter halo properties are much more diverse than predicted in the prevailing cold dark matter theory. In this talk, I will show that self-interacting dark matter can provide a unified solution to a number of observed puzzles on galactic scales, including the diverse galactic rotation curves, the radial acceleration relation, and the density cores in galaxy clusters.

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