

The dynamics of ultra-diffuse dwarf galaxies in MOND

Friday, 5 November 2021 11:50 (30 minutes)

In this talk, I will review the current state of research on the apparently dark matter-free ultra-diffuse dwarf galaxies, emphasizing what our research team has investigated in recent years. In particular, I will focus on galaxies NGC 1052-DF2 and NGC 1052-DF4 in the framework of MOND. Due to the non-linear Poisson equation in MOND, a dwarf galaxy has weaker self-gravity when in close proximity to a massive host. Using our analytic formulation and fully self-consistent live N-body models in MOND, I will show you how the dynamics of these galaxies are in good agreement with MOND prediction.

Presenter: Prof. HAGHI , Hosein (ISABS-Iran)