PHYSICS AND ASTRONOMY SEMINAR

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“Wakes and global halo modes triggered by massive satellites”

Abstract

“The orbital decay of a perturber within a larger system from nuclear star clusters or globular clusters in host galaxies, to massive black holes in the nuclei of galaxies, and dwarf galaxy satellites within the dark matter halos of more massive galaxies, plays a key role in the dynamics of astrophysical systems. Since many decades there have been various attempts to determine the underlying physics and timescales of the drag mechanism, ranging from the local dynamical friction approach of Chandrasekhar (1943), to descriptions based on global modes induced in the background system (e.g. Tremaine & Weinberg 1984). An ultimate solution to this problem has been difficult owing, among other things, to the limited resolution of numerical simulations employed to test theoretical models. Here we present ultra-high resolution simulations

Tuesday, July 28, 2020

2:00 p.m.

CLE – Room A202