

PHYSIKALISCHES KOLLOQUIUM

SOMMERSEMESTER 2024

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DWARF GALAXIES VS. COSMOLOGY: DO THEY DANCE TO Λ CDM'S TUNE?

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Dwarf satellite galaxy systems such as that of the Milky Way have emerged as a critical test cases for the cosmological standard model Λ CDM. They revealed intriguing small-scale challenges via comparisons to simulations. Notably, the persistent issue of satellite galaxies' unexpected spatial alignments and coherent velocities—known as the Planes of Satellite Galaxies Problem—stands as a significant anomaly. Despite advancements in understanding through Gaia's expansion of proper motion measurements and broader observational studies beyond our Local Group, these satellite phase-space correlations continue to spark heated debates regarding their implications for cosmology. I will introduce the research area of systems of satellite galaxies and review some of our recent progress regarding planes of satellite galaxies, asymmetrical distributions, and a potential too-many-satellites-problem.

Die Einführung erfolgt durch Hendrik Hildebrandt

Die Fakultät lädt alle Interessierten herzlich ein. Die Veranstaltung findet im Hörsaal HNB statt.

