

Seminarium Astrofizyczne
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Hoża 69 Pawilon; sala **118**

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Modeling dwarf spheroidals with Schwarzschild method

Dwarf galaxies are believed to be the most dark matter dominated objects with dark to baryonic mass ratios even of the order of hundreds. Therefore, they seem to be the best laboratory for studying this unexplored component of the Universe. However, we do not have at our disposal reliable tools even to precisely measure the most basic parameter of a dwarf galaxy, its mass. The most commonly used Jeans modeling is subject to the mass-anisotropy degeneracy, the degeneracy between the underlying mass profile and the anisotropy of orbits of the tracer particles. I will present a method of dynamical modeling based on Schwarzschild's orbit superposition approach which has a potential of breaking this degeneracy. The reliability of the method has been extensively tested on mock data sets proving it to be capable of recovering both mass density and anisotropy profiles. An application of the method to Fornax dSph, a satellite of Milky Way, will be the final point of my talk.

Serdecznie zapraszam,
Agnieszka Majczyna