

Seminarium Astrofizyczne  
wtorek 07.03.2017 godz. 12:30  
Hoża 69 Pawilon; sala 22

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### **Intrinsic morphology and global kinematics of Andromeda satellite galaxies**

The  $\Lambda$ CDM model represents nowadays the best understanding of the formation and the evolution of large scale structures in our Universe. Nevertheless, this paradigm is not predictive and successful yet at smaller scales. In this context, satellites in the Local Group (LG), the simpler and closer galactic systems, are one of our best chance to test this model and to improve our comprehension of galaxy formation at smaller scales. In this talk, I will present a method to derive analytically the intrinsic (3D) morphology of 25 Andromeda (M31) satellites. Results suggest that the LG is in fact more disturbed than what was previously thought. This trend seems to be confirmed by very preliminary outcomes based on numerical simulations. After this individual approach, I will further expose a recent result on the global kinematics of the M31 system. This new estimation suggests for the first time a high transverse velocity for this system with respect to the Milky Way. These values could lead to redefine the entire dynamic of the LG and its surroundings.

Serdecznie zapraszam  
Agnieszka Majczyna