

## **Seminarium Astrofizyczne**

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<https://zoom.us/j/439968736>

Meeting ID: 439 968 736

Password: 072094

### **Darko Donevski**

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### **Knocking on giants' doors: the evolution of dust-to-stellar mass ratio in distant galaxies**

Recent advent of millimetre arrays such as ALMA and NOEMA helps unveiling the long redshift tail ( $2 < z < 7$ ) of dusty galaxies, transforming our view of massive star-formation in the very distant Universe. Despite such progress, the dust-to-stellar mass ratio, one of the most important quantities, remains poorly constrained, which prevents us from knowing the complexity of physical processes involved in the production of dust, metals and stars in galaxy evolution. In this seminar, I will present the results of the first ALMA-based study that systematically studied the dust-to-stellar mass ratio in a large sample of 300 massive galaxies observed up to redshift  $z \sim 5$ . The particular focus of this seminar will be in discussing how to combine observational methods and state-of-the-art models in order to address two important questions: (1) how the dust-to-stellar content evolves with cosmic time and position of the galaxy in respect to the main-sequence? (2) how can the observed evolution be understood within the framework of dusty galaxy formation and evolution?

Serdecznie zapraszam,  
Agnieszka Majczyna