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The role of planets in the mass segregation of stellar systems

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The dynamical evolution of planetary objects in stellar clusters is still an uncharted territory, and observation of planets in general are extremely limited. In this talk, I will first explain how these objects are created, and then numerically explore the dynamical evolution of such objects, using different stellar cluster densities. The main objective will be to understand if the dynamical mass segregation in these cluster affects planets, and, if not, what is the reason behind it. The initial work of this series suggest that the planets follow the potential of the central core. This is supported by the fact that denser cores retain more planet, statistically. Moreover, if we vary the energy distribution of the planet population, the result are similar.

Primary author: FLAMMINI DOTTI, Francesco Maria (University of Heidelberg)

Co-authors: Prof. KOUWENHOVEN, (MBN) Thijs (Xi'an Jiaotong-Liverpool University); Prof. SPURZEM, Rainer (University of Heidelberg)

Presenter: FLAMMINI DOTTI, Francesco Maria (University of Heidelberg)

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