Contribution ID: **129** Type: **Talk**

Gas and multiple evolution in young star clusters and other gas-rich environments

Tuesday, 20 August 2024 16:45 (20 minutes)

I will discuss how gas affects the evolution of multiple star systems in young star clusters and other gas-rich environments. In particular, gas can shrink and circularize wide binaries, potentially explaining observed changes in binary properties with star cluster age. Additionally, gas can trigger instabilities in multiple systems. Finally, gas may trigger the formation of binaries and higher-order multiples from initially unbound stars. I will present results from both semi-analytic calculations and hydrodynamic simulations.

Affliation

Technion Israel Institute of Technology

Current Position

Postdoc

Primary author: GENEROZOV, Aleksey (Technion Israel Institute of Technology)

Co-authors: Prof. PERETS, Hagai (Technion Israel Institute of Technology); Prof. OFFNER, Stella (UT Austin); Prof. KRATTER, Kaitlin (University of Arizona)

Presenter: GENEROZOV, Aleksey (Technion Israel Institute of Technology)

Session Classification: Numerical approaches to modelling stellar systems and their constituents

Track Classification: Numerical approaches to modelling stellar systems and their constituents