VolkswagenStiftung

Dynamical Mechanisms of Accretion in Galactic Nuclei

Initiative: Trilaterale Partnerschaften – Kooperationsvorhaben zwischen Wissenschaftler(inne)n aus der

Ukraine, Russland und Deutschland

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The first goal of this project is to carefully analyse how accretion processes such as tidal disruption and accretion of stars are affected by the stability of dense stellar systems around SMBH and to numerically study the validity of the (typically) linear stability analysis for real systems. The centre of our own Galaxy is an important prototype to let our models undergo a reality check in comparison with a wealth of recent observational data of the distribution of stars there. The second goal of the project is to investigate how the presence of the gas changes the stability of the central star cluster and the star accretion rates (by interaction of the stars with the gas) and how much gas from the central disk will be accreted onto the SMBH. Here the lifetime and stability of the central AD will also be investigated.

Projektbeteiligte

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