第29回
RESCEU コロキウム

東京大学大学院理学系研究科 附属ビッグバン宇宙国際研究センター

日　時:　2018 年 6 月 21 日(木) 13:30 ～14:30

場　所:　理学部 4 号館 1 階ピロティ RESCEU セミナー室

講　師:　Shinsuke Takasao 氏 (Nagoya Univ.)

Accretion from a magnetized disk onto a central star: New accretion mode

The accretion process in magnetized disks is a general topic which is relevant for black hole accretion disks and protoplanetary disks, for example. The central region of accretion disks is particularly important for the evolution of central objects. However, since these processes are associated with a global magnetic field configuration and a highly turbulent disk, the detailed physics still remains elusive. To reveal the accretion structure, we performed three-dimensional magnetohydrodynamic simulations of accretion from a disk to a central star, in the context of star formation. Traditionally it has been considered that a fast (>~100 km/s) accretion is an indication of the accretion controlled by a strong stellar magnetic field (magnetospheric accretion), and many studies estimated the accretion rate on the basis of this picture. However, we found that a fast accretion is possible even without a strong stellar field. We will discuss the physics and implication for observations.

興味をお持ちの方の聴講を歓迎致します。お茶とお菓子を用意しております。