

第30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7月31日(火) 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: Magnus Axelsson 氏 (Stockholm Univ.)

Breaking the spectral degeneracies in black hole binaries using rapid variability

The spectra of black hole binaries in the low/hard state are complex, with evidence for multiple different Comptonisation regions contributing to the hard X-rays, in addition to a cool disc component. However, it is difficult to constrain the shapes of these components uniquely using spectral data alone. We show how additional information from fast variability can break this degeneracy. In GX 339-4 we focus on the strong variability features known as quasi-periodic oscillations (QPOs), and in Cygnus X-1 we study the broad-band variability. In both sources, the results not only require inhomogeneous Comptonization, but also allow us to constrain the spectral components. We discuss our results in the context of propagating fluctuations through a hot flow, and the implications for our picture of the accretion flow.

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。