

X-ray spectral and timing study of super-Eddington AGN

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AGN exhibit the most powerful accretion and radiation processes in the Universe. Super-Eddington Narrow-line Seyfert 1 Galaxies (NLS1s) are phenomenal because of their small black hole masses and very high mass accretion rates. In this talk, I will first talk about the general properties of super-Eddington NLS1s, mainly focusing on the X-ray spectral-timing properties and broadband SED. These observational results can help us to constrain the super-Eddington disc structure, which contains a standard outer disc, a puffed-up inner disc with strong disc wind and advection, an extended soft X-ray corona, and a compact hard X-ray corona. We can also obtain reliable measurements of the global radiation efficiency. In the second part, I will present latest results about an enigmatic, extreme super-Eddington NLS1 RX J0134.2-4258, and compare it with super-Eddington quasars at high redshifts.

Topic

活动星系核与超大质量黑洞

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