Jet-Domination in Sub-Eddington Black Holes

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With better sensitivity in radio and X-rays more and more detailed observations of sub-Eddington black holes are possible. This is especially important for Low-Luminosity AGN and X-ray binaries in the low/hard-state. Fitting the spectral energy distribution of these sources with a combined jet and disk model (either standard thin disks or ADAFs) we find that the contribution from jets become relatively stronger compared to the emission from the accretion disk at most wavelengths. This may be an important input for unified schemes and can, for example, explain the absence of any thermal disk spectrum in BL Lacs or FR I radio galaxies. If sub-Eddington black holes are indeed largely dominated by non-thermal spectra from jets, one can explain a range of phenomena, like, for example, the intriguing radio-X-ray correlation in some X-ray binaries and the unusual spectral energy distributions of some famous LLAGN, such as Sgr A* and NGC4258.