

The high-energy view of Seyfert galaxies through broad-band monitoring campaigns

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We present results from broad-band (UV to hard X-rays) monitoring campaigns, carried out in recent years, on three different AGNs: a prototypical Seyfert 1 (NGC 4593), a broad-line radio galaxy (3C 382), and a highly accreting Seyfert 1 (HE 1143-1810). In all cases, the campaigns consisted of five joint XMM-Newton/NuSTAR observations, plus VLBA joint observations for 3C 382. The high-energy data are always consistent with a ‘two-corona’ scenario, in which the UV emission and soft X-ray excess are produced via thermal Comptonization in a warm ($kT \sim 0.5\text{--}1$ keV), optically thick ($\tau \sim 10\text{--}20$) corona, while the hard X-ray emission is produced in a hot and compact corona. Moreover, the warm corona is consistent with covering a large fraction of a quasi-passive accretion disc, i.e. that mostly reprocesses the warm corona emission. We discuss the physical implications of this scenario for the accretion flow, such as the presence of strong magnetic fields and the capability of launching outflows and jets.

Affiliation

INAF - OAS Bologna

Primary author: URSINI, Francesco (INAF - OAS Bologna)

Presenter: URSINI, Francesco (INAF - OAS Bologna)

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