



X-RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

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Radio bimodality of Swift/BAT AGNs and SDSS quasars

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Comparison of properties of quasars with those of low redshift AGNs with similar BH masses but accreting at much lower accretion rates provides exceptional opportunity to study the dependence of the properties of these massive accretion systems on the specific accretion rate. This particularly concerns abilities of such systems to produce powerful jets. We present here results of comparison of radio-loudness distributions and discuss them in the context of investigated in literature scenarios proposed to explain the radio-dichotomy of AGN. Our preliminary results indicate that: (1) there is an explicit bimodality in the radio-loudness distributions in both populations; (2) the radio-loud fraction of AGNs accreting at moderate rates is larger than of quasars. These differences are consistent with predictions of the MAD (magnetically-arrested-disk) scenario for the production of strong jets and favor the model according to which central accumulation of magnetic flux proceeds prior to the AGN/quasar event.

Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

Affiliation

Nicolaus Copernicus Astronomical Center Polish Academy of Sciences

Primary author: Ms RUSINEK, Katarzyna (Nicolaus Copernicus Astronomical Center Polish Academy of Sciences)

Co-authors: Prof. SIKORA, Marek (Nicolaus Copernicus Astronomical Center); GUPTA, Maitrayee (Nicolaus Copernicus Astronomical Center)

Presenter: Ms RUSINEK, Katarzyna (Nicolaus Copernicus Astronomical Center Polish Academy of Sciences)

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