



# X-RAY ASTRONOMY 2019

*Current Challenges and New Frontiers in the Next Decade*

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## Scattered X-Ray Radiation in Obscured Active Galactic Nuclei

*Friday, 13 September 2019 17:40 (2 minutes)*

Accreting supermassive black holes, also known as active galactic nuclei (AGN), are surrounded by large quantities of gas and dust. Based on the column density of the material in the line of sight, AGNs can be classified as obscured and unobscured. In the case of obscured AGNs, the torus depletes most of the light produced by the accreting black hole and a useful way to study them is in the X-rays, which can penetrate large column densities. By utilizing the data provided by the 70-month Swift/BAT all-sky survey in the hard X-ray regime (14-195 keV), we study the properties of Thomson scattered X-ray radiation for a sample of local ( $z < 0.1$ ) AGNs and the relation between the fraction of scattered radiation and the physical properties of the black hole.

### Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

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