



# X-RAY ASTRONOMY 2019

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## A sample of AGNs with known inclination angle

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The cosmic X-ray background (CXB), the diffuse X-ray emission observed between 0.5 keV and 300 keV, is thought to be mainly produced by obscured and unobscured active galactic nuclei (AGNs). According to the historical AGN unified model, different types of AGNs are obscured by a structure of gas and dust named torus but with different inclination angle. With the successful launch of the high-resolution X-ray observatories in recent decades, more and more physically motivated models with different assumptions were developed to study these excellent spectra of AGNs. Nevertheless, the physical and geometrical properties of the obscuring torus are still quite unclear, due to the complexity of the models and the limited number of the sources with high-quality X-ray spectra. In this presentation, I will introduce the results of a sample of AGNs with high-quality data of NuSTAR, XMM-Newton and Chandra. All the sources in the sample have foreknown inclination angle measured in optical, which could give better constraints on the information of the obscuring torus, especially the geometrical properties of the torus.

### **Topic**

Active Galactic Nuclei: accretion physics and evolution across cosmic time

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