

# Probing clustering of X-ray AGN using Chandra Cosmos Legacy

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The presence of a SMBH in almost all galaxies in the Universe is an accepted paradigm in astronomy. How these BHs form and how they co-evolve with the host galaxy is one of the most intriguing unanswered problems in modern Cosmology and of extreme relevance to understand the issue of galaxy formation. Clustering measurements can powerfully test theoretical model predictions of BH triggering scenarios and put constraints on the typical environment where AGN live in, through the connection with their host dark matter halos. In this presentation I will talk about the clustering properties of X-ray AGN from both an observational and theoretical point of view, using the new catalog of AGN detected by Chandra in COSMOS and semi-empirical models. The Chandra COSMOS-Legacy catalog is the largest available sample of X-ray AGN for clustering studies, allowing clustering measurements as a function of obscuration, luminosity and AGN host galaxy properties.

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