X-RAY ASTRONOMY 2019
Current Challenges and New Frontiers in the Next Decade
8-13 September 2019
CNR/INAF Research Area, Bologna, Italy

Contribution ID: **97** Type: **Poster**

# Completing the new generation of Chandra Extragalactic Surveys with the Chandra Deep Wide-Field Survey

*Friday, 13 September 2019 18:06 (2 minutes)*

X-ray surveys are one of the most efficient ways to detect active galactic nuclei (AGN) and perform statistically meaningful population studies. In the past decade, important results in this field came from both wide and deep X-ray surveys of the sky, performed following the well-known "wedding cake" approach.
Thanks to these surveys, there is now compelling evidence that there is a strong connection between the growth of Black Holes (BHs) and the evolution of large-scale structures.
To further test this picture, the Chandra Deep Wide Field Survey (CDWFS) was designed, able to probe large volumes and detect large numbers of AGN at the luminosities and redshifts that comprise the bulk of the growth of BHs. Indeed, the CDWFS pushes deeper the wide layer of the "wedding cake", to align with the sensitivity-area locus of the most recent Chandra surveys.
In this talk, the status of the survey and its perspectives will be discussed: we will take advantage of the exquisite Chandra angular resolution and sensitivity in order to study in detail the large-scale clustering of AGN and their Eddington-ratio distribution, to probe the AGN-Dark Matter halo and AGN-Star Formation connections.

## Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

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**Session Classification:** POSTER SESSION