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University of Miami, Physics Department Colloquium

Date: Wednesday, Sep 20, 2023
Time: 4:00 pm – 5:00 pm
Location: Wilder Auditorium – Rm 112, Knight Physics Building

Black Holes Evolution and Dark Matter in X-ray Astronomy

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Abstract

Chandra, XMM-Newton, and Swift gather an extensive collection of X-ray data across a wide area of the sky. Leveraging this data, we analyzed these satellite databases and cross-referenced available literature to investigate the evolution and coevolution of Active Galactic Nuclei (AGN) with their respective host galaxies. These X-ray databases also provide a platform for examining how diffuse sources from galaxy clusters and the X-ray background contribute to tracking the coevolution of Dark and Baryonic matter. A common theme emerges, suggesting that the key to understanding both Supermassive Black Holes and the nature of Dark Matter could be concealed within the Universe's first billion years. Therefore, it is essential to broaden our exploration through the X-ray window into this epoch.