

# **X-Ray Survey Results on Active Galaxy Physics and Evolution**

*W.N. Brandt, D.M. Alexander, F.E. Bauer & C. Vignali.*

## **Abstract**

This “pedagogical” review describes the key Chandra and XMMNewton extragalactic surveys to date and details some of their implications for active galaxy physics and evolution. We additionally highlight two topics of current widespread interest: (1) X-ray constraints on the active galactic nucleus content of luminous submillimeter galaxies, and (2) the demography and physics of high-redshift ( $z > 4$ ) active galaxies as revealed by X-ray observations. Finally, we discuss prospects for future X-ray surveys with Chandra, XMM-Newton, and upcoming missions.

**Keywords:** Black Hole, Active Galactic Nucleus, High Redshift, Local Universe, Starburst Galaxy.