

Notre Dame **Science**
Department of Physics

THE CHANDRA X-RAY OBSERVATORY AND ITS CONTRIBUTION TO STUDYING THE ENERGETICS OF BLACK HOLES

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(Refreshments at 3:30 P.M. NSH 202)

NASA's Chandra X-ray Observatory, launched in July 1999, has revolutionized the field of high-energy astrophysics. It has made key contributions to our knowledge of a wide array of astrophysical objects, including stars, white dwarfs, supernovae, galaxies, quasars, and clusters. I will briefly review some of these discoveries, before moving on to discussing an area in which Chandra's legacy will perhaps be most strongly felt: the energetics of supermassive black holes. I'll present new evidence that winds and outflows from Active Galactic Nuclei play a key role in the evolution of galaxies and the large-scale structure of the universe, before finally offering a glimpse into the near future, when we will be able to measure black-hole spin out to cosmological redshifts.

Colloquium

**All interested
persons are
cordially
invited to
attend.**