

THE *CHANDRA* X-RAY OBSERVATORY: OBSERVING THE HIGH ENERGY UNIVERSE

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The *Chandra* X-ray Observatory was launched from the Space Shuttle Columbia on 23 July 1999 and has completed nearly eight years of successful scientific operations with outstanding results. *Chandra* is the third of NASA's Great Observatories and is the most sophisticated X-ray Observatory yet built. The telescope is designed to observe X-rays from high-energy regions of the universe, such as the remnants of exploded stars, environs near black holes, and the hot tenuous gas filling the void between the galaxies bound in clusters.

We present an overview of the *Chandra* mission, its telescope and instrument configuration. We discuss a series of scientific highlights from the mission with emphasis on the analysis techniques used to deal with the photon-counting data particular to X-ray astronomy. We conclude with a brief discussion of the plans for future X-ray astronomy missions.