Chandra ACIS Observations of the Crab Nebula

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[Contributed talk, 15min.]

Abstract

The Advanced CCD Imaging Spectrometer (ACIS) onboard the *Chandra X-ray Observatory* has been used to monitor the temporal evolution of the Crab Nebula. A series of 8 observations, spanning a period of approximately six-months, reveals the dynamic nature of the inner X-ray structures. An outward moving wisp from the recently discovered inner ring is detected, very similar to the wisp seen by the *Hubble Space Telescope* in both location and motion. The inner ring itself shows temporal variations in structure, although it appears to retain its overall ring-like shape and relative position with respect to the pulsar. In particular, the knots which form the southeast portion of the ring change in both morphology and brightness. There also appears to be some hint on motion of a blob along the jet. A spectroscopic analysis of these components will also be presented.

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