Optical Classification of Chandra Serendipitous Sources by the ChaMP

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Abstract

We describe our ongoing optical imaging and spectroscopy of a deep, wide-area sample of serendipitous X-ray sources detected in Chandra archival images. The Chandra Multiwavelength Project (ChaMP) thus enables studies of the nature, evolution, and clustering of X-ray selected AGN and galaxies. Chandra's subarcsecond astrometry enables unambiguous identification of optical counterparts, and the broadband X-ray sensitivity (0.3-8keV) means that our sample is less affected by absorption than previous optical, UV, or soft X-ray surveys. Unlike radio surveys , the ChaMP will allow the first complete census of the intrinsic population of AGN (not just the radio bright fraction). We present initial results that will eventually encompass a sample of thousands of serendipitous sources detected in 150 Chandra archival images, to constrain the X-ray luminosity function and its evolution.

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