

Department of Physics & Astronomy

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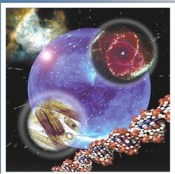
Friday, October 19, 2012

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Prospecting the Bulge of Our Galaxy for Black Holes and Neutron Stars

Our knowledge of Galactic black hole and neutron star binaries is largely limited to bright objects and serendipitous discoveries. While this has allowed many exciting discoveries it leaves serious unanswered questions about the population and evolution of these objects in our Galaxy. At a basic level, we do not have good answers, even to within an order of magnitude, to questions such as 'How many black hole binaries are in the Galaxy?' The Galactic Bulge Survey (GBS) is a systematic X-ray led survey of two regions above and below the center of our Galaxy aiming to address these questions. By working out of the plane we avoid the worst interstellar extinction and find optical counterparts to many of our 1640 X-ray sources, allowing classification and detailed multiwavelength follow-up. I will describe the motivations for the project, describe our follow-up strategy, and highlight a few examples of the objects we are finding, that include stars of all types, compact binaries, and even active galaxies seen clear through the Bulge of our Galaxy.



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