"What can we learn from studies of extragalactic accreting binaries?"

Andreas Zezas
Assistant Professor
Department of Physics, University of Crete

Abstract

Accreting binary stars are systems consisting of a star and a compact object (black hole, neutron star, or a white dwarf). As such they can provide important information on stellar evolution and the populations of compact objects. The availability of sensitive X-ray and optical observations with the Chandra Observatory and the Hubble Space Telescope respectively, enable us to extend these studies to other galaxies. This advance greatly increases our statistical sample, and probes rare types of sources that are not present in our Galaxy.

We will present resent results from a systematic study of the populations of accreting binaries in nearby galaxies that allow us to measure directly their formation efficiency and to set constraints on poorly known parameters related to their evolution.