

PHYSICS AND ASTRONOMY COLLOQUIUM

Dr. Christopher Reynolds

University of Maryland

"The Astrophysics of Black Hole Spin"

Abstract

In addition to providing vital clues to the formation and evolution of black holes, the spin of black holes may be an important energy source in the Universe. Over the past couple of years, tremendous progress has been made in the realm of observational measurements of spin. I will describe these efforts with particular focus on the use of X-ray spectroscopy to probe the spin of supermassive black holes in active galactic nuclei (AGN). I shall describe results from the Suzaku AGN Spin Survey, a Suzaku Key Project that targets five bright and well-known AGNs with observations of sufficient depth that black hole spin can be assessed. For the first time, we are obtaining hints about the distribution of spin across the population of supermassive black holes with some interesting and unexpected consequences.

Wednesday, September 26, 2012 3:30 p.m. Bob Wright Centre Room A104