

Instituto de Astronomía  
Universidad Nacional Autónoma de México  
Sede Ensenada, Baja California, México

# Seminario

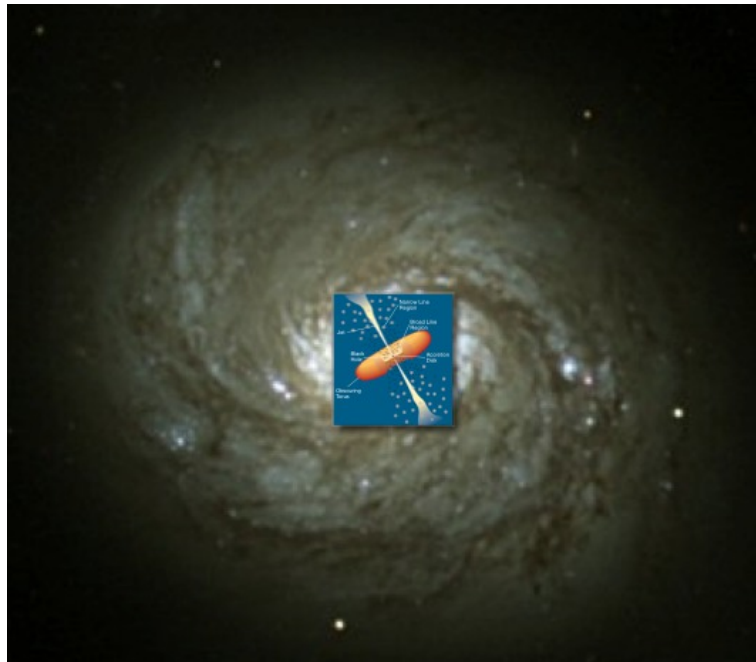
*Miércoles, 09 de Mayo de 2012*

**11:00 hrs, Auditorio IA-Ensenada**

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*James Aird*  
(UCSD)

## “THE INCIDENCE OF AGN IS INDEPENDENT OF HOST STELLAR MASS.”



I will present evidence that the incidence of Active Galactic Nuclei (AGN), when defined in terms of Eddington ratio, is independent of the stellar mass of the host galaxy. We use X-ray data from three extragalactic fields (XMM-LSS, COSMOS and ELAIS-S1) to identify AGN within PRIMUS, a low-resolution spectroscopic survey of  $\sim 120,000$  galaxies to  $z=1.2$ . We find that the Eddington ratio distribution for moderate-luminosity AGN is a universal function, exhibiting a power-law distribution with a slope of  $-0.65$ , over a wide range of galaxy stellar masses. We also find that the AGN fraction strongly increases with redshift to  $z=1$ , and is weakly enhanced (factor  $\sim 2$ ) in galaxies with blue or green optical colors. AGN activity and star-formation are correlated, but we do not find evidence that the presence of an AGN (and therefore AGN feedback) is related to the quenching of star-formation or the color transformation of galaxies. Indeed, our results show that AGN are found in galaxies of all stellar masses and colors, and are not predominantly in red, passively-evolving, massive galaxies - while a higher fraction of AGN may be observed in such galaxies, this is purely a selection effect related to the underlying Eddington-ratio distribution.