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TIME: Wednesday, 2:30 PM, Jan. 16, 2013 **LOCATION: A601 NAOC**

Coevolution (Or Not) of Supermassive Black Holes and Galaxies

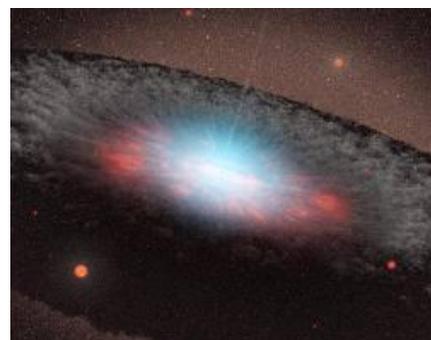


Dr. Luis C. Ho (Carnegie Observatories)

Dr. Luis Ho is a Staff Astronomer at the Carnegie Observatories. He got his PhD of Astronomy from University of California at Berkeley in 1995. He went on to the CfA as a postdoctoral fellow from 1995 to 1998. Then He joined Carnegie Observatories in 1998. His main research areas are physical processes in galactic nuclei, accretion disks and jets, searches for massive black holes, origin of the Hubble sequence, extragalactic star formation, star clusters and other dense stellar systems, interstellar medium in galaxies.

Abstract

Supermassive black holes (BHs) have been found in 87 galaxies by dynamical modeling of spatially resolved kinematics. The Hubble Space Telescope revolutionized BH research by advancing the subject from its proof-of-concept phase into quantitative studies of BH demographics. Most influential was the discovery of a tight correlation between BH mass and velocity dispersion of the bulge component of the host galaxy. Together with similar correlations with bulge luminosity and mass, this led to the widespread belief that BHs and bulges coevolve by regulating each other's growth. I present a major update to the status of this field. I will discuss (1) how BH mass correlates tightly only with classical bulges and ellipticals, (2) how the zero point and slopes of the fundamental correlations need to be revised, (3) problems with radio-mode feedback as a key process to regulate the evolution of massive galaxies, (4) quasar-mode feedback at high redshifts, and (5) the evolution (or lack thereof) with time of the BH-host galaxy scaling relations.



All are welcome! Tea, coffee, biscuits will be served at 2:15 P.M.

You are welcome to nominate speakers to Weimin Yuan (wmy@nao.cas.cn, Jan-Mar), Mei Zhang (zhangmei@bao.ac.cn, Apr-Jun), Licai Deng (licai@bao.ac.cn, Jul -Sep), Xuelei Chen (xuelei@cosmology.bao.ac.cn, Oct -Dec).