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国台学术报告 NAOC COLLOQUIUM

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Time: Wed. 2:30 PM, Sep. 14 Location: A135 NAOC

Reverberation mapping of active galactic nuclei for black hole mass: current, future and applications

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Jian-Min Wang, was graduate from National University of Defence Technology and received PhD from University of Science and Technology of China in 1995. He was a postdoc in Tuebingen University (Humboldt Fellow) and Kyoto University (COE Fellow). He was enlisted by Hundred Talent Program of CAS, and by Distinguished Young Investigator of NFSC. Major scientific interests focus on active galactic nuclei and black hole evolution. Recently he is working on reverberation mapping for measurements of black hole mass.

Abstract

Reverberation mapping (RM) as a powerful tool measures time lags of broad emission lines with respect to varying continuum for kinematics and structure of broad-line regions in active galactic nuclei (AGNs) and leads to the well-known R-L relation. This time-domain technique has been advanced for more than 40 years for accurate measurements of supermassive black hole mass, in particular, velocity-resolved, 2-dimension maps, polarization and MCMC are applied nowadays for AGN physics. In this seminar, I briefly introduce the RM technique, current results of several campaigns and applications. We have performed four years of spectroscopic monitoring super-Eddington accreting AGNs through the Lijiang 2.4m telescope. Results of this campaign will be reported, such as, Hbeta shorter lags, Fe II reverberation, BLR fundamental plane and saturated luminosity of super-Eddington accretion as standard candles. Prospect of future observations is overviewed.

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