

You are welcome to nominate speakers to colloquium@nao.cas.cn. The video and slides of previous colloquia and more information can be found at <http://colloquium.bao.ac.cn/>.

国台学术报告 NAOC COLLOQUIUM

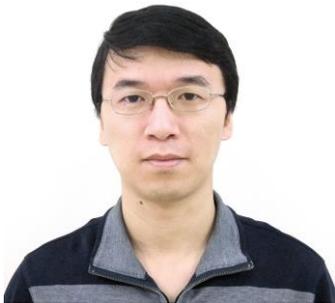
2017年 第37次 / No. 37 2017

Time: Wed. 2:30 PM, Dec. 13th Location: A601 NAOC

Quest for Galaxy-Wide Quasar Feedback

Prof. Guilin Liu

University of Science and Technology of China



Prof. Guilin Liu received his bachelor's degree in astrophysics from USTC in 2004. His Ph.D. in astronomy from University of Massachusetts at Amherst (2011) was based on a dissertation on star formation in nearby galaxies. He branched out to the domain of quasar feedback when conducting postdoctoral research at the Johns Hopkins University and Virginia Tech (2011-2016). He joined the USTC astronomy faculty through the National Thousand Young Talents Program recently. His research interest is focused on multi-wavelength observations of galaxies and quasars, and has been awarded over 300 hours on HST, Gemini, VLT, CARMA, JVLA, Arecibo, Subaru and other telescopes. He joined the HST WFC3 Early Release Science Team in 2009, and is now a TMT ISDT member. His research on IFU mapping of quasar outflows and sub-kpc star formation scaling laws has made broad impact in the astronomical community.

Abstract

Feedback from quasars is a key ingredient in galaxy formation models. Theorists expect quasars to drive outflows engulfing the entire host galaxy, but the actual spatial scale of outflows remain largely uncertain, and direct probes of this process in action are scarce. The development of integral field unit spectroscopy in the last decade has opened a new window for direct mapping of quasar outflows and for pinning down their spatial extents. Our pioneering work in this field has shown that galaxy-wide outflows are ubiquitous



in the majority of luminous quasars. We have also performed the first direct confirmation of the outflow radii and energetics indirectly derived from the absorption line analysis. These findings are likely the long-sought direct evidence for black hole accretion energy reaching galactic scales and shaping the formation and evolution of galaxies.

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