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国台学术报告 NAOC COLLOQUIUM

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Time: Wednesday 2:30 PM, June 14th **Location: A601 NAOC**

High-Contrast & Resolution Imaging Technique and Applications in Exoplanets Detection and Solar Observations

Dr. Jiangpei Dou

Nanjing Institute of Astronomical Optics and Technology, CAS



Dr. Jiangpei Dou is a research professor in NIAOT, CAS. He received his Ph.D. of Astrophysics in 2009 from UCAS. He has spent most of his time in the development of high-contrast imaging technique and instrument since 2007. Recently, He has splitted partial of his time in the high-contrast imaging observation and associated data reduction. His major interest is the direct imaging research of exoplanets from ground and in future space missions.

Abstract

With over 3000 exoplanets discovered mostly by indirect detection approaches, none Earth-twin planet has been 100% confirmed. High-contrast imaging technique can directly detect the photons from the planet itself, thus will allow the spectroscopy analysis of its atmosphere, making it critical to answer “Are we alone?” one of the most fundamental scientific questions. In this talk, I will present our recent high-contrast imaging observations on middle sized telescopes, which includes the ESO’s 3.6-meter NTT, 3.5-meter ARC telescope in the Apache Point Observatory as well as the 2.7-meter HJS telescope in McDonald Observatory. Meanwhile, I will briefly present the exoplanet imaging program on our proposed 12-meter Large Optical-infrared Telescope (LOT), which has been listed among the top of national “13th five-year plan”. I will also talk about the Cool Planet Imager (CPI, including two ambitious missions of JEEEDIS and EELS), a going-on program on the research of Earth-like exoplanets and terrestrial life-signals in future space missions, which has listed the top among programs in the Strategic Priority Research Program of CAS, Space Astronomy of Year of 2016-2030. Finally, I will make a very brief introduction of high-resolution imaging, IFU spectroscopy and magnetic polarimetry in solar and associated observations, as well as 3-D seeing profile measurement which has been under development in this group.

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