

LULIN OBSERVATORY, NATIONAL CENTRAL UNIVERSITY

Established in 1992, Lulin Observatory administered by National Central University (NCU) is the first graduate program in Taiwan. There are eight full-time faculty members, working in diverse research fields, ranging from merging galaxies, AGNs, GRBs, X-ray binaries, star formation, star clusters, Galactic structure, to solar-system bodies. Currently there are about 20 students in the PhD program and about the same number in the MS program. A diverse curriculum in astronomy and astrophysics is offered by the faculty, both at the graduate level and at the undergraduate level together with the physics and space science majors.

The institute operates the Lulin Observatory, hosting a one-meter, a 40-cm, and a 35-cm telescope. These facilities serve the faculty and students for education and basic research uses. With an elevation of 2862 m above sea level, Lulin is located at the geometric center of the island, amid the central mountain range, with a west



Lulin Observatory

Pacific longitude particularly apt for observing celestial events. The Lulin One-meter Telescope (LOT) is open to the international community, and is equipped with a standard CCD imager, a low-dispersion spectrograph, and an optical tri-color simultaneous imaging polarimeter. A near-infrared imager will be available by the end of 2013. The Lulin Observatory also hosts the Taiwanese-American Occultation Survey (TAOS), which has an array of four telescopes, each with a 50-cm aperture and a field of 2.7 deg in diameter. This

array monitors stellar brightness for chance occultation events by Kuiper-belt objects. A two-meter telescope is being planned at Lulin. In addition to competitive access to telescopes such as the CFHT, UKIRT, Subaru, Gemini, VLT, SMA, ALMA and other ground-based facilities, our faculty and students also make use of Fermi, Swift, Suzaku, and Chandra space instruments.

NCU is a member of the international scientific consortium of the Panoramic Survey Telescope And Rapid Response System (Pan-STARRS). Its prototype, PS1, is located in Haleakala, Hawaii. The 1.8 m telescope, equipped with a giga-pixel camera that can render a 7 square degree field, patrols the entire visible sky several times a month at multiple optical wavelengths up to 1 micron. Objects changing brightness (transients, variable stars) or positions (solar-system objects) will be winnowed out, and very deep static sky data are accumulated.

Together with several university groups in Taiwan, NCU partners with PS1 institutes, in the USA, Germany, and UK, to pioneer studies on cosmic variability. We are also negotiating to have data access to the Palomar Transient Factory (PTF) project, a time-domain sky survey led by the California Institute of Technology.

The Institute celebrates its 20th anniversary this year, and the international faculty, postdocs and students continue to challenge frontier scientific topics and cutting-edge instrument developments. The institute maintains a vigorous visitor program. Please refer to <http://www.astro.ncu.edu.tw> for more detailed information about the insitute. ■



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PEKING UNIVERSITY – DEPARTMENT OF ASTRONOMY



Peking University (PKU) offers astronomy courses since the 1920s, and in 1960 the first astronomy major was offered by the Department of Geophysics. PKU and the Chinese Academy of Sciences (CAS) signed an agreement in 1998 to jointly establish the Department of Astronomy (DoA) at PKU, with academician Jiansheng Chen as the head of department. In 2001, the DoA was incorporated into the School of Physics and given the status of National Key Discipline, after which it expanded substantially. During its 50-year history, Peking University has trained hundreds of astrophysicists. Its alumni include three academicians, five observatory directors, and six NSFC Distinguished Young Scholars. The DoA established intensive collaboration with the National Astronomical Observatories (NAOC). Peking University and NAOC share teaching of the graduate curriculum, student supervision, and resources to complement research activities. The DoA employs 11 full-time faculty and over 10 domestic and foreign scholars as adjunct faculty and visiting professors.

The goal of PKU-DoA is to train high-quality astrophysicists. The DoA recruits students



A scene from the campus of PKU.

at all levels, with an average annual intake of 30 undergraduates, 10 doctoral students and 5 postdoctoral researchers. For undergraduate students there are two four-year programs: astrophysics and astrophysical technology. The subsequent Master's degree lasts three years and the Ph.D. degree lasts four years. Students are encouraged to take part in exchange programs, and each year many graduate and undergraduate students are sent to prestigious institutes abroad for joint training, in order to get involved in the forefronts of astronomical research at an early stage.

The PKU Department of Astronomy focuses on a wide variety of research fields, including cosmology and galaxy formation, particle astrophysics and high-energy astrophysics, interstellar medium, stars, and planetary systems. The DoA promotes exchanges and cooperation in

the construction of international academic exchange platforms and cultivates innovative talents with a global perspective.

Kavli Institute for Astronomy and Astrophysics

As one of 16 high-profile international research institutes under the umbrella of the Kavli Foundation, the Kavli Institute for Astronomy and Astrophysics (KIAA) aims at promoting basic research of the highest international standards in China. Daily scientific and administrative life at the KIAA is organized according to well-established international models. An advisory committee composed of senior scientists from around the world advises as regards proposed academic and visitor programs and offers assistance with major issues such as the research direction, review of proposed appointments, and performance evaluation. The institute, which saw completion of its building in the campus of Peking University in late 2008, hosts both mainland Chinese and Taiwanese, as well as other international (British, Dutch, German, Italian, Japanese, and American) faculty and postdocs. It is designed as a forum for global scientific exchange, an incubator of inno-

vative projects, and a training center for international postdocs and students. KIAA and its faculty organize a variety of academic activities and programs to stimulate research and promote interdisciplinary interactions, in close collaboration with the Department of Astronomy.

The Kavli Foundation was founded by Norwegian physicist and industrialist Fred Kavli in 2000. Dedicated to the advancement of basic sciences for the benefit of humanity, the foundation supports research in the fields of astrophysics, nanotechnology and neuroscience. Since the founding of the first Kavli Institute for Theoretical Physics at the UCSB in 2001, the Kavli Foundation has thus far funded 16 Kavli institutes at major universities in the USA, Europe and Asia. The institutes are led by world-class scientists. Amongst them three are Nobel laureates while others are members of eminent organizations, including the American National Academy of Sciences, the American Academy of Arts and Sciences and the Royal Society of the UK. The Kavli Foundation also honors scientific achievement and promotes public understanding through high-profile Kavli prizes in these fields. ■