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Study of Solar System Small Bodies in Taiwan and Macau



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Wing-Huen Ip was born in Nanjing, China, but grew up in Macau. He received his undergraduate education in Hong Kong (BA, CUHK, 1969), and graduate training in USA (MA, Pittsburgh, 1970; PhD, UCSD, 1974). His main research fields are cometary physics, planetary science, solar system evolution and exoplanets. He worked at the Max-Planck-Institute for Aeronomy (now MPI for Solar System Research) from 1978 to 1998 prior to his employment at Institutes of Astronomy and Space Science, National Central University, Taiwan. He is currently serving as Vice Chancellor of the University System of Taiwan. He was Founding President of Asia Oceania Geosciences Society. He is member of International Academy of Astronautics (2000), AGU Fellow (2007), and Honorary Member of AOGS (2008). He was awarded the Exceptional Public Service Medal of NASA (2009) for his work on the Cassini-Huygens mission to Titan and the Saturnian System.

Abstract

Over the last few years, a number of research projects on asteroids, comets and Trans-Neptunian Objects (TNOs) have been started at National Central University (NCU) in Taiwan and Macau University of Science and Technology (MUST) in Macau. At NCU, the main effort is on the analysis of observational data obtained by the Pan-STARRS project on Mauna Haleakala, Hawaii, with special emphasis on the search for binary Jovian Trojans and Neptunian Trojans and the monitoring of outgassing activity of Centaurs and main-belt asteroids. We are also a part of the New Generation Virgo Cluster Survey (NGVS) of CFHT to search for TNOs in high-order resonances. We have established a fruitful cooperation with the Institute of Astrophysics of Andalusia (IAA) in Granada, Spain. The cooperative projects include the study of cometary dust jets and spectro-photometric survey of hydrated C-type asteroids. More recently, we have turned our attention to the opportunity of software development and data analysis of the photometric measurements from the GAIA mission of ESA. We envisage a very active international collaboration (i.e., IAA, MUST and NCU) in this area. MUST is also working closely with the asteroidal research groups at Purple Mountain Observatory and Yuan-Nan Astronomical Observatory, respectively. As for space study, we will have extensive involvements in the Rosetta project to comet 67P/C-G and possibly other missions in future. For example, we are particularly interested in the first asteroid mission of the Chinese space agency under planning and the possibility of a future lander/sample return mission to the terrestrial proto-planet, Ceres. The Ceres mission will address key issues on the formation of the solar system and the origin of pre-biotic molecules found in some carbonaceous chondritic meteorites.



All are welcome! Tea, coffee, biscuits will be served at 2:45 P.M.