

第1回 RESCEU コロキウム



東京大学大学院理学系研究科 附属ビッグバン宇宙国際研究センター

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場 所: 理学部4号館1階ピロティ RESCEU セミナー室

講 師: Pisin Chen 氏 (国立台湾大学)

Radiowave Detection of Ultra High Energy Cosmic Neutrinos and Cosmic Rays

There has been tremendous progress in the field of particle astrophysics in recent years, exemplified by the results from the Pierre Auger Observatory in Argentina on ultra high energy cosmic ray (UHECR) detection and the IceCube at the South Pole on PeV cosmic neutrino observation. Here we introduce a novel methodology based on the detection of the radio wave signals emitted by the ultra high energy cosmic neutrinos (UHECN) and cosmic rays. Such radio wave signals can be either triggered by the Askaryan effect or the geosynchrotron effect. In this talk we will review the several projects based on this approach, namely ANITA, ARA, and TAROGE, that have been pursued by the Leung Center for Cosmology and Particle Astrophysics (LeCosPA) at the National Taiwan University. We will first review the science potentials in astrophysics and particle physics through the detection of UHECR and UHECN. We will then report on the history, status and the future prospect of ANITA, ARA, and TAROGE observatories, including their scientific results obtained so far.

興味をお持ちの方の聴講を歓迎致します。お茶とお菓子を用意しております。