EXPERIMENTAL PHYSICS DIVISION SEMINAR INSTITUTE OF HIGH ENERGY PHYSICS, CAS

Sources of High-Energy Neutrinos from the Cosmos



| Speaker: | Qinrui Liu (刘沁枘 Queen's Univ) |
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| Host: | Xuefeng Ding (丁雪峰 IHEP) |
| Time: | 10:00 Wed 18th Oct 2023 |
| Indico: | indico.ihep.ac.cn/event/20727 |
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Abstract:

Neutrinos of cosmic origin are excellent messengers to investigate the Universe. The IceCube experiment discovered TeV-PeV neutrinos of astrophysical origin. One mission following the discovery is to identify where those neutrinos come from and the mechanisms of their production, which is an important piece in solving the mystery of cosmic-ray accelerators. In this talk, I will review high-energy astrophysical neutrino observation, highlight recent results, and present the prospects for the identification of neutrino emission from potential Galactic and extragalactic sources in current and future neutrino telescopes.

About the speaker / 报告人介绍:

Dr. Qinrui Liu is currently a postdoctoral fellow at Queen's University and associate postdoctoral researcher at Perimeter Institute in Canada. She obtained her bachelor's degree in 2016 at Wuhan University and Ph.D. degree in 2021 at University of Wisconsin-Madison with Prof. Francis Halzen. She is a member of the IceCube Collaboration and her work focuses on high-energy astrophysical neutrinos. She is interested in neutrino sources searches, indirect dark matter searches, and exploring particle phenomenology with astrophysical neutrinos based on current experimental data, and studying their detection prospects with future neutrino experiments.