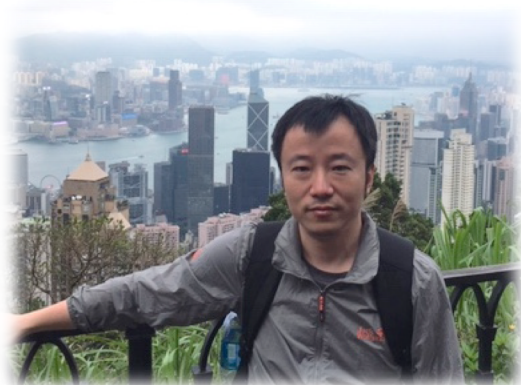


Search for dark photons and collider neutrinos with FASER



Speaker: Prof. Xin Chen (Tsinghua Univ.)

Time: 10am Tuesday 11 April 2023

Location: B326 IHEP Main Building

Indico: indico.ihep.ac.cn/event/19425

Zoom ID: 8511 5204 034

Password: 123456

Abstract :

FASER is an experiment situated at one side of the ATLAS cavern to detect long-lived particles produced in proton-proton collisions in ATLAS. We present the first results from FASER based on LHC Run 3 data on the dark photon search and detection of neutrinos, the most elusive particles in the Standard Model. It signifies the first observation of neutrinos from a collider source, after they were first discovered in 1956. Other larger experiments at LHC are not able to detect those neutrinos directly. FASER's successful observation paves the way for deeper understanding of neutrino related physics, and the prospect for BSM particle searches such as the dark matter in the future.

About the speaker:

Dr. Xin Chen obtained his Ph.D. from the University of Wisconsin-Madison in 2009 in experimental particle physics. He is now an associate professor in the Department of Physics at Tsinghua University. He had worked on rare B meson decays at BaBar, Higgs property measurements and BSM Higgs signature search in the ATLAS experiment, and recently on long-lived particle search at FASER. He is very keen on collaborating with both phenomenologists and experimentalists in particle physics.