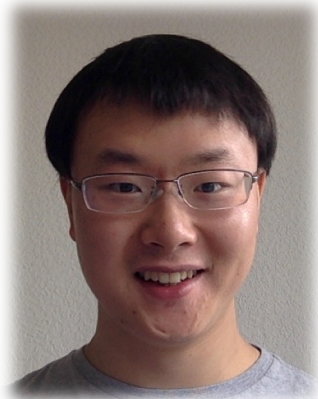


Flavor Physics at Future e^+e^- Z Factories



Speaker: Dr. Xunwu Zuo (左训午, KIT)
Host: Dr. Wuming Luo (罗武鸣)
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Abstract:

Future electron-positron "Higgs factories" , such as CEPC and FCC-ee, are also Z factories. The FCC-ee, for example, expects a production of 6 trillion Z bosons, giving rise to an abundance of beauty and charm hadrons, as well as tau leptons. A wide range of measurements will be possible in heavy-flavor spectroscopy, rare decays of heavy-flavored particles and CP-violation studies, which benefits from the low-background experimental environment, the high Lorentz boost, and the availability of the full spectrum of hadron species. Such experiments also enable the possibility to extend the searches for Lepton-Flavour-Violating decays of the tau lepton, B mesons, and Z and Higgs bosons to unprecedented precisions. This talk gives an overview of the broad potential of the flavor physics program at future Z factories and some projected physics results from recent analyses.

About the speaker:

Xunwu got his bachelor's degree from the University of Science and Technology of China (USTC) in 2015, and his PhD from the University of Florida (UF) in 2021. He is currently a postdoctoral researcher at Karlsruhe Institute of Technology (KIT). His research topics include searches and measurements of rare decays of the Higgs boson at the Large Hadron Collider (LHC), as well as precision measurements of rare B meson decays at the Future Circular Collider (FCC). He has also participated in the proposal and prospective studies of the Muon-Ion Collider (MuIC) concept.