

Understanding the nature of Electroweak Symmetry Breaking with CEPC-SPPC

Speaker: Prof. Xinmin Zhang (Theory Division, IHEP)

Time: 11:00 am, November 28, 2014

Place: Room B324

Organized by the Experimental Physics Division

Abstract:

Understanding the nature of electroweak symmetry breaking is a central issue of the particle physics. The discovery of the Higgs boson at LHC answers part of, but not all of the questions. In this informal talk, I will discuss some of the issues on the nature of electroweak symmetry breaking, such as the Higgs potential and the electroweak phase transition and their implications in particle physics and cosmology. I will explain how the new physics beyond the standard model at the TeV scale makes it possible for the strong first order phase transition and baryogenesis and the importance of the measurement on the anomalous top quark couplings to understand the nature of electroweak symmetry breaking.

With a model independent analysis and an effective Lagrangian technique, I will argue that the CEPC-SPPC will provide an decisive answer to the issue on the first order phase transition and electroweak baryogenesis, which certainly helps us to understand better the nature of electroweak symmetry breaking.

*****Food and drinks will be served after the seminar.*****