

Direct measurement of the trilinear Higgs self-coupling in $e^+e^- \rightarrow ZH$.

Thursday, 6 December 2018 16:45 (15 minutes)

A method to measure “directly” the trilinear Higgs self-coupling λ in a single Higgs production process is proposed. Time-reversal-odd (T-odd) quantities in the process $e^+e^- \rightarrow ZH, Z \rightarrow f\bar{f}$ are computed from the absorptive part of the electroweak one-loop amplitude. They are essentially up-down asymmetries of the final fermion f with respect to the ZH production plane. The T-odd asymmetries directly measure λ , because the tree-level diagram for a final-state interaction between the ZH contributes linearly to them.

Presenter: NAKAMURA, Junya (Universität Tübingen)

Session Classification: Parallel Session 1