Contribution ID: **79** Type: **Oral presentation using Zoom**

New No-Lose Theorem for Higgs Coupling Measurements

Thursday, 28 October 2021 11:20 (20 minutes)

We obtain the upper bound on the new physics scale as a function of the Higgs coupling deviation factor by considering the perturbative unitarity of $2 \to 2$ scattering amplitudes among the longitudinally polarized electroweak gauge bosons and the Higgs bosons.
We estimate the unitarity bound in a new effective field theory which parameterizes the sizable non-decoupling effects from the new physics in the Higgs self-couplings. Our effective field theory is contracted based on the experimental fact that the Higgs couplings to electroweak bosons/fermions are consistent with those predicted in the SM within O(10%) error.

1st preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

2nd preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

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Session Classification: F-1: Higgs properties

Track Classification: Parallel sessions: Topical Groups: Session F: Higgs properties