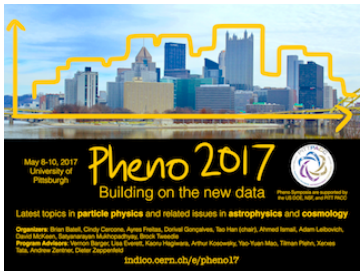

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Electroweak Symmetry Breaking in Gauge-Higgs Unification Models

Monday 8 May 2017 14:15 (15 minutes)

We investigate composite Higgs models based on $SO(5) \times U(1)$ in the framework of gauge-Higgs unification in AdS_5. To create a Little Hierarchy, we introduce a top partner that competes with the top quark in the generation of the Higgs potential. We also make use of the freedom to adjust the gauge couplings with UV boundary kinetic term. Our model space is still only two-dimensional after the masses of known particles are fixed. Precision electroweak observables give the most significant constraint on the scale of new physics. Top partners and gauge boson resonances in our model are accessible at colliders and we study the relation of the resonance masses to precision observables such as the Higgs boson and top quark couplings. This will aid in understanding the constraints on composite Higgs models from the LHC and future accelerators such as ILC.

Summary

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