

# **Poincare Breaking in Flat Minkowski and Gauge-Restoring Emergent Gravity**

Durmuş Demir, Sabancı University

The Higgs field restores gauge symmetries in massive vector fields and gives a UV completion. Similarly, affine curvature turns out to restore gauge symmetries broken explicitly by the UV cutoff and give a gravitational completion. In this symmetry-restoring emergent gravity, symmergent gravity in brief, gravity emerges in a way guided by gauge invariance, reconciled with quantum fields, and accompanied by new particles [1,2]. In this talk, we will introduce symmergent gravity with a detailed discussion of its main properties and salient predictions.