KMI – Theory Seminar Wednesay, March12, 2014 3:00 pm, KMI Science Symposia (ES-635)

"Collider Signatures of Gauge-Higgs Unification at LHC"

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Abstract:

Although a Higgs particle was discovered by ATLAS and CMS collaborations at CERN LHC, its origin is still a mystery of particle physics. In this respect, it is important to study the predictions from the physics beyond the Standard Model (SM). In this talk, we focus on the gauge-Higgs unification scenario as the physics beyond the SM, the collider signatures at LHC will be discussed, namely, the diphoton decay, the Z photon decay of the Higgs boson mainly produced by gluon fusion as examples. Our results are found to be very specific and distinctive compared to those of the SM and the physics beyond the SM.