

KEK Theory Meeting on Particle Physics Phenomenology (KEK-PH2018 winter) and 3rd KIAS-NCTS-KEK workshop on Particle Physics Phenomenology

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Heterotic M-theory from the clockwork perspective

Friday, 7 December 2018 11:00 (30 minutes)

A continuum limit of the clockwork mechanism provides a useful picture to understand extra dimensions. The Generalized Linear Dilaton model (GLD) realizes the continuum clockwork with varying clockwork gear masses. A special point of GLD is the linear dilaton model (LD) which has been discussed from the type II little string theory. In this talk, I will discuss a possible UV completion of GLD from different types of string theory. It will be shown that the Horava-Witten theory (or Heterotic M-theory) provides a direct realization of certain types of GLD with characteristic phenomenological features. Furthermore, I will discuss the possibility that more general M-theory limit via 11D supergravity can realize LD and Randall-Sundrum (RS) points.

Presenter: IM, Sang Hui (Pusan National University)

Session Classification: Plenary Session