XI NExT PhD Workshop: Probing fundamental physics at colliders and beyond



Contribution ID: 19 Type: not specified

Planck-safe U(1)' Extensions Explaining RK(*)

Tuesday 29 June 2021 11:30 (5 minutes)

In this talk we will investigate a class of heavy Z'-models which are able to explain the recent $R_{K^{(*)}}$ -data. The models feature new vector-like fermions as well as additional scalar fields.

In addition to well-known theoretical and phenomenological constraints, we also demand Planck safety, i.e. a stable and pole free Renormalization Group evolution up to the Planck scale.

We identify Planck safe benchmark scenarios fulfilling all relevant constraints and briefly discuss their phenomenological implications.

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Presenter: HÖHNE, Tim (TU Dortmund) **Session Classification:** Student talks