

# **Ultraviolet completion and predictivity from a minimal parameterization of Beyond-Standard-Model physics**

*Monday, 10 June 2019 17:35 (35 minutes)*

I will discuss the fate of the  $U(1)$  gauge coupling under the inclusion of vector-like fermions in the standard model. Then, motivated by results on quantum gravity contributions to the running of gauge and Yukawa couplings, I talk about the effect of simple but general corrections on the running of those couplings from the EW to large enough energy scales. One of our goals is to have an explanation for the pattern observed in the masses of the quark sector in the standard model, as well as the mixing angles.

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