

Unraveling the Particle World and the Cosmos at Berkeley—Workshop in Honor of Lawrence Hall and Hitoshi Murayama



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Wrinkles in the Froggatt-Nielsen Mechanism and Flavorful New Physics

In this poster we discuss using flavor to probe physics beyond the Standard Model. We discuss the use of Froggatt-Nielsen (FN) models for explaining the Standard Model flavor hierarchy and define wrinkles, extra suppression or enhancement factors which modify the expected scaling of coupling sizes from FN models. We show how wrinkles can change the expected size of couplings to new physics in FN models, and how they naturally appear in UV models, as well as discuss the example of the recent $B \rightarrow K \nu \bar{\nu}$ measurement. We also briefly mention recent work illustrating the complementarity between future muon colliders and precision experiments for probing lepton flavor violation.

Title

Abstract

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