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B-Factory Signals for a Warped Extra Dimension

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I will discuss flavor physics in a warped (curved) extra dimension. In this model, the profiles of fermions in the extra dimension explain hierarchies in fermion masses. Moreover, there is an analog of GIM mechanism with first and second generations resulting in suppressed contributions to flavor changing neutral currents. Just as in the SM, the GIM mechanism is violated by inclusion of the heavy top quark, in turn, leading to striking signals at B-factories such as O(1) effects in semileptonic and radiative B decays and B_s mixing. Remarkably, this model can be interpreted as dual to a 4D composite Higgs model. Thus, the upshot is that a 4D strongly interacting Higgs sector can solve flavor puzzle with suppressed flavor-violation and be tested at B factories.

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