

SEMINÁŘ OTF

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**Flavor mixing in models
with dynamical mass generation**

Abstrakt

In models based on the Higgs mechanism the starting point giving rise to the flavor mixing is the appearance of mass matrices in the Lagrangian. Their diagonalization leads to the emergence of fermion flavor mixing parameterized in the quark sector by the celebrated unitary Cabibbo-Kobayashi-Maskawa (CKM) matrix. However, there is a wide class of models with dynamical mass generation, in which one does not have at disposal constant mass matrices, but rather momentum-dependent self-energies. While it is still easy to obtain the spectrum simply by looking for the poles of the full propagators, it is not immediately clear how to deal with the flavor mixing. We present an approach for solving this problem, based on a straightforward application of the Lehmann-Symanzik-Zimmermann (LSZ) reduction formula. We give an example of the quark mixing and derive an effective CKM matrix, which turns out to be, in general, non-unitary.

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