

FLASY 2018: 7th Workshop on Flavour Symmetries and Consequences in Accelerators and Cosmology



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The mass ratios parametrization

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In this talk, we fully discuss the old idea of parametrizing fermion mixing through the corresponding fermion masses. We begin by showing how 't Hooft's criteria for naturalness could be employed to build a new mixing parametrization with the right behaviour to allow the emergence of new symmetries, whenever considering either the first or the first two lightest families equal to zero. Thereafter, by virtue of these limits, a rough estimation of quark mixing is obtained in well agreement to its present experimental values. We end by discussing a particular parametrization where such relations between mixing angles and only mass ratios were achieved, that, however, do not fulfill all the conditions that naturalness imply.

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