Physics of fundamental Symmetries and Interactions - PSI2016



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Gauge flavor symmetry, flavor structure and flavor violation

Tuesday 18 October 2016 09:00 (30 minutes)

I discuss the gauge flavor symmetry (SU(3) and its modifications) between three fermion families. The mass hierarchy between families and

the pattern of mixing angles is determined by the breaking pattern of this symmetry which can also lead to predictive schemes. I shall discuss the properties of flavor gauge bosons which should generically induce flavor-nondiagonal couplings, the questions what types of flavor-violating processes they can mediate and how light they can be and whether they can be directly discovered at the LHC.

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