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Type: **Parallel Talk**

On a common origin of gauge interactions and flavour structure of the Standard Model

Thursday, 7 July 2022 12:00 (15 minutes)

I would like to present an intriguing new perspective into such fundamental questions as 1) the origin of the gauge interactions in the Standard Model (SM), and 2) the origin of the quark, lepton and neutrino families' replication and their fundamental properties experimentally observed in Nature. These questions can be addressed by tying together in a common framework both flavour physics and Grand Unification, which are typically treated on a different footing. Furthermore, I will elaborate on New Physics scenarios that are expected to emerge at phenomenologically relevant energy scales as sub-products of the Trinification-based Flavoured GUT that naturally explain neutrino masses and observed hierarchies in the fermion sectors of the SM as well as the emergence of observed flavour anomalies.

In-person participation

Yes

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