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Hints of new physics in flavour anomalies (and what meson mixing and lifetimes can tell us)

Tuesday, 18 December 2018 10:00 (1 hour)

Over the last 5 years, there have been increasingly strong hints of something amiss in flavour physics. Starting with a small anomaly in a rare decay mode of B mesons, the current status amounts to a coherent set of discrepancies involving the non universality of decays to different flavour leptons - with a combined significance of around 5 sigma.
I will review the history of these flavour anomalies, and what we mean by a coherent EFT explanation. I will introduce meson mixing and lifetimes and how they are calculated, and then discuss how possible NP models that explain the anomalies are strongly constrained by these calculations.

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