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[325] Measurement of the Cabibbo-Kobayashi-Maskawa matrix element |Vcb| using the decay B- -> D0 l- nu_l at Belle II

Wednesday 1 September 2021 15:30 (15 minutes)

A long-standing discrepancy in flavour physics is observed in the determination of the CKM elements |Vcb| and |Vub|. For |Vcb|, a combined tension of about 3σ is seen between different methods of determination. We revisit the decay B- -> D0 l- nu_l using data of the Belle II experiment to clarify the experimental status of this parameter. In addition to a measurement of the decay branching fraction and a test of lepton universality between electron and muon channels, the rate as a function of the 4-momentum squared of the lepton-neutrino q² is determined to fit for the CKM element |Vcb|. The preliminary results will be presented.

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