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Vus from tau decay data (15' + 5')

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We discuss the results from two determinations of V_{us} using hadronic tau decay data. In the first, we revisit the determination from flavor-breaking finite-energy sum rules and show that the low V_{us} values obtained from this approach in the past are the result of a systematic problem associated with assumptions, which can now be shown to be incorrect, about higher dimension OPE contributions on the theory side of the relevant sum rules. Lattice data is used to confirm this analysis and to aid in quantifying the theory errors on the OPE side. Fitting the higher dimension contributions to data leads to V_{us} in good agreement with that obtained from $K_{\ell 3}$ data using lattice input for $f_{+}(0)$. The second determination results from a novel approach in which sum rules for the sum of the vector and axial vector flavor us polarizations are constructed which relate integrals over the strange hadronic tau decay distributions to lattice values of the underlying polarization sum at intermediate Q^2 , where lattice data for the polarization is rather accurate. We compare the results of these determinations to those from $K_{\ell 3}$ and $\Gamma_{[K_{\mu 2}]} / \Gamma_{[\pi_{\mu 2}]}$.

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