V_{ud} from Electron Capture

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The V_{ud} element of the Cabibbo-Kobayaski-Maskawa quark mixing matrix has so far been determined from nuclear pure Fermi transitions, mirror transitions, neutron decay and pion decay. Electron capture is a closely related process to nuclear beta decay, driven by the same weak interaction strength. In this contribution, we present the extraction of V_{ud} derived purely from electron capture (EC) for the first time. The absence of Fermi transitions within an isospsin multiplet, occurring exclusively by EC, demands appealing to nuclear theory to calculate the relevant Gamow-Teller matrix elements involved in the transitions. We present results obtained using available *ab-initio* calculations in ^{7}Be and stress the need for the proper evaluation of theoretical uncertainties.