

Chiral extrapolation of hyperon vector form factors

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Abstract: We present a new analysis of SU(3)-breaking corrections to the hyperon vector form factor using heavy baryon chiral perturbation theory. We correct and extend old results, analyse the consistency of the chiral expansion and discuss the feasibility of using the theory to drive the chiral extrapolation of lattice simulations. Finally we test the calculations on lattice results for the vector form factor $\Sigma \rightarrow \Lambda$.