

Abstract:

The F and G formfactors of K_{l4} decays are calculated to $O(p^4)$ in isospin limit in Resummed Chiral Perturbation Theory. Formulae for reparametrization of low-energy constants $L_1 - L_3$ in terms of physical observables are derived. They are used to obtain values of these low-energy constants from recent experimental data, theoretical error of the result is estimated and dependence on parameters X, Z of spontaneous symmetry breaking of $SU(3) \times SU(3)$ chiral symmetry and quark mass ratio r is investigated. Convergence of the formfactors in Resummed Chiral Perturbation Theory is discussed and it is suggested that inclusion of σ as an explicit degree of freedom into Chiral Perturbation Theory could significantly improve overall coverage of chiral series.