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Charged kaon electric polarizability from lattice four-point functions

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We study the electric polarizability of a charged kaon from four-point functions in lattice QCD as an alternative to the background field method. Lattice four-point correlation functions are constructed from quark and gluon fields to be used in Monte Carlo simulations. The elastic form factor (charge radius) is needed in the method which can be obtained from the same four-point functions at large current separations. Preliminary results from the connected quark-line diagrams will be presented.

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