

$K\pi$ scattering and the $K^*(892)$ resonance in 2+1 flavor QCD

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In this project, we aim to compute the form factors relevant for $B \rightarrow K^*(\rightarrow K\pi)\ell^+\ell^-$ decays. To map the finite-volume matrix elements computed on the lattice to the infinite-volume $B \rightarrow K\pi$ matrix elements, the $K\pi$ scattering amplitude needs to be determined using Lüscher's method. Here we present preliminary results from a calculation with 2 + 1 flavors of dynamical clover fermions, on a $32^3 \times 96$ lattice with $a = 0.1140(8)$ fm and $m_\pi = 317(3)$ MeV.

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