

# Timelike pion form factor from lattice QCD

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We present a lattice QCD calculation of the electromagnetic form factor of the pion in the timelike region. This calculation was performed on a lattice with  $N=2+1$  dynamical quark flavors, with a heavier than physical pion mass of 284 MeV.

At this pion mass, the rho meson main contribution to pion-pion scattering and the timelike form factor appears in the elastic energy region.

The scattering phase-shift was also extracted in the inelastic region containing isovector kaon-kaon interactions, allowing future work to study the form factor in the coupled channel energy region from lattice QCD.

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