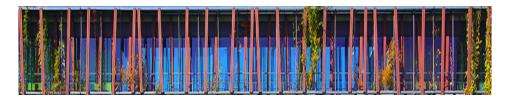
## **EuroPLEx Final Conference**



Contribution ID: 47 Type: Presentation

## Towards a high-precision description of the ρ and K\* resonances

Tuesday 12 September 2023 16:00 (30 minutes)

We present preliminary results for the  $K^*(892)$  and  $\rho(770)$  resonances extracted from lattice QCD data using Lüscher's finite-volume formalism. We review the theory and techniques involved in our computation of correlation functions and extraction of energy levels from an RBC-UKQCD  $N_f=2+1$  domain-wall fermion lattice with a physical pion mass. We consider lattice irreducible representations with only leading P-wave contributions and use the corresponding finite-volume spectra to constrain the  $K\pi$  and  $\pi\pi$  scattering amplitudes. We study systematic errors resulting from the choice of fit ranges through a model-averaging technique.

Presenter: LACHINI, Nelson (Edinburgh U)