The 38th International Symposium on Lattice Field Theory

LATTICE 21

JULY 26-30 2021, ZOOM/GATHER@MIT

Contribution ID: **297** Type: **Oral presentation**

I=1 pi-pi scattering at the physical point and the long-distance behavior of the vector correlator

Tuesday 27 July 2021 06:00 (15 minutes)

We present a finite volume spectroscopy calculation of I=1 pi-pi scattering utilizing the (stochastic) distillation framework on close to physical and physical point N_f = 2 + 1 CLS ensembles. Using the finite volume energy levels, we discuss the long-distance behavior of the vector correlator, which is dominated by the two-pion channel. This part can be accurately constrained using the reconstructions, which has important consequences for lattice calculations of the hadronic vacuum polarization contribution to the muon anomalous magnetic moment.

Primary author: PAUL, Srijit (The Cyprus Institute)

Co-authors: HANLON, Andrew (Helmholtz-Institut Mainz, JGU); HOERZ, Ben; MOHLER, Daniel (Helmholtz-Institut Mainz); MORNINGSTAR, Colin (Carnegie Mellon University); WITTIG, Hartmut

Presenter: PAUL, Srijit (The Cyprus Institute)

Session Classification: Hadron Spectroscopy and Interactions

Track Classification: Hadron Spectroscopy and Interactions