Contribution ID: **57** Type: **not specified**

Low-energy pion-nuclen scattering and the Delta resonance in lattice QCD

Wednesday, 12 June 2019 14:30 (30 minutes)

We report on our investigation of low-energy pion-nucleon scattering from lattice QCD with Wilson-type fermions.
Our focus is on the isospin $I = 3/2$ channel, which couples to the Delta resonance.
We discuss our calculations aiming at the extraction of the Delta resonance mass, width and effective coupling at pion mass
250 MeV and the physical point, using the L\"uscher finite-volume method to extract the phase shift $\delta_{J=3/2,l=1}$.

Primary author: PETSCHLIES, Marcus (HISKP, Bonn University)

Presenter: PETSCHLIES, Marcus (HISKP, Bonn University)

Session Classification: Parallel Session B

Track Classification: Baryon spectrum and structure from first principles of QCD