Contribution ID: **10** Type: **not specified**

Nucleon electromagnetic form factors at large momenta using the Feynman-Hellmann theorem

Wednesday, August 5, 2020 4:20 PM (20 minutes)

The hadronic form factors at large momentum transfers often suffer from substantial excited state contributions and poor signal-to-noise ratios. Using the Feynman-Hellmann theorem allows for calculations of the hadronic form factors which only rely on two-point functions this allows access to higher momenta while still controlling the excited state contributions. We will present results from our study of the electromagnetic form factors of the nucleons up to approximately \(9 \textrm{ GeV}^2\). The calculations are performed using \(N_{f} = 2+1\) flavour, \(\mathcal{O}(a)\)-improved Wilson fermions on lattices with spacing \(a=0.074 \textrm{ fm}\) and three different pion masses of \(466 \textrm{ MeV}\), \(360 \textrm{ MeV}\) and \(310 \textrm{ MeV}\).

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Session Classification: Hadron Structure

Track Classification: Hadron Structure