

# DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 177

Type: **Parallel talk**

## QCD predictions for pion and kaon form factors at large momenta

*Thursday 30 March 2023 09:40 (20 minutes)*

An important physics program at the JLAB12 and EIC facilities is understanding the emergence of the masses and internal structures of Goldstone mesons, pion and kaon, through measurements of their electromagnetic form factors at large momenta transfers,  $Q$ . In this talk we will present first results of pion and kaon electromagnetic form factors up to  $Q^2 = 10 \text{ GeV}^2$  and  $Q^2 = 30 \text{ GeV}^2$ , respectively, from state-of-the-art lattice QCD calculations at the physical values of pion and kaon masses. For a deeper understanding, we will compare these results with the predictions based on pion and kaon distribution amplitudes and charge radii, both obtained from lattice QCD calculations with the same setup. These results not only provide discriminatory tests for QCD-inspired models but also serve as benchmark QCD predictions for measurements at JLAB12 and EIC.

### Submitted on behalf of a Collaboration?

No

### Participate in poster competition?

**Primary author:** MUKHERJEE, Swagato

**Presenter:** MUKHERJEE, Swagato

**Session Classification:** WG 1

**Track Classification:** WG1: Structure Functions and Parton Densities