Contribution ID: **40** Type: **Oral**

ρ and vector meson spectroscopy and their diffractive production using holographic light-front QCD

Tuesday, 26 November 2024 16:50 (20 minutes)

We determine the mass spectroscopy and diffractive cross-section of ρ and ϕ vector meson by solving the holographic light-front Schrodinger equation along with the ’t Hooft equation of (1+1)-dimensional QCD in the large Nc limit. In order to obtained the diffractive cross-sections, we utilized the holographic LFWFs in conjunction with the color glass condensate dipole cross-section. Our spectroscopic and diffractive cross sections results are consistent with the available experimental data. Additionally, we also showed that the resulting LFWFs for the ρ and ϕ meson can effectively describe various properties, including its decay constant, distribution amplitudes, electromagnetic form factors, charge radius, magnetic and quadrupole moments.

Primary author: GURJAR, Bheemsehan (IIT Kanpur)

Co-authors: Dr MONDAL, Chandan (IMP China); Dr KAUR, Satvir (IMP China)

Presenter: GURJAR, Bheemsehan (IIT Kanpur)

Session Classification: Parallel-2