Light-Cone 2024: Hadron Physics in the EIC era



Contribution ID: 65 Type: Invited

Basis Light-front Quantization Approach to Λ_b and Σ_b Baryons

Tuesday, 26 November 2024 17:10 (20 minutes)

Within Basis light-front Quantization framework, we obtain the masses comparable to experiment and the light-front wave functions of Λ_b and its isospin triplet baryons Σ_b^+ , Σ_b^0 and Σ_b^- . Our prediction of their electromagnetic properties is in agreement with other theoretical calculations. Meanwhile their parton distribution functions (PDFs) are obtained with the gluon and the sea quark PDFs generated dynamically from the QCD evolution of the valence ones.

Primary author: MENG, Lingdi (Institute of Modern Physics, Chinese Academy of Sciences)

Co-authors: MONDAL, Chandan (Institute of Modern Physics, Chinese Academy of Sciences); VARY, James (Iowa State University); LAN, Jiangshan (近代物理研究所); PENG, Tiancai (Lanzhou university); ZHAO, Xingbo (Institute of Modern Physics, Chinese Academy of Sciences)

Presenter: MENG, Lingdi (Institute of Modern Physics, Chinese Academy of Sciences)

Session Classification: Parallel-1