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Nucleon structure from 2+1 flavor lattice \mathbf{QCD}^1

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This talk gives a review of the recent lattice results obtained on the coarse RIKEN-BNL-Columbia (RBC) and UKQCD joint dynamical (2+1)-flavor domain-wall fermions (DWF) ensembles, where the simulated strange quark mass is close to its physical value, and the up and down quark masses are down to about 1/7 the strange quark mass (M_{π} = 330 MeV). Topics to be covered include iso-vector nucleon form factors and low moments of isovector structure functions of the nucleon, which are relevant for theoretical understanding of nucleon structure. Unresolved issues and future directions in lattice QCD will be discussed.

 1 for RBC+UKQCD Collaborations