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Improved analysis of nucleon isovector charges and twist-2 matrix elements on CLS $N_f = 2 + 1$ ensembles

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Preliminary results are presented for nucleon isovector charges and twist-2 matrix elements which have been obtained employing an improved analysis strategy to deal with excited state contamination. The set of CLS $N_f=2+1$ gauge ensembles in this study has been extended compared to our 2018 calculation, including an ensemble at physical quark masses. Besides the addition of new ensembles, the number of gauge configurations and measurements has been increased on several of the existing ensembles and the analysis has been extended to include additional source-sink separations. The ensembles cover a range of the light quark mass corresponding to $M_\pi \approx 0.130\text{MeV} \dots 350\text{MeV}$, four values of the lattice spacing $a \approx 0.05\text{fm} \dots 0.09\text{fm}$ and a large range of volumes. Results at the physical point are computed for each observable from a combined chiral, continuum and finite size extrapolation.

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