

# Nucleon electromagnetic form factors using $N_f = 2 + 1 + 1$ twisted-mass fermions at the physical point

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We present the results for the electromagnetic form factors of the proton and neutron using three ensembles of twisted mass fermions at the physical point. Studying the momentum transfer dependence of the form factors resulting from a multi-state fitting procedure, we obtain the electric and magnetic radii and the magnetic moments in the continuum limit. Furthermore, we extend the analysis to obtain the strange nucleon electromagnetic form factors using four ensembles of twisted mass fermions. The disconnected strange contributions are computed with high statistics two-point functions combined with the quark loop computed by employing stochastic noise mitigation techniques such as spin-color dilution and hierarchical probing. Our final results include systematics arising from excited states, cut-off effects, the functional form of the momentum transfer dependence and the momenta cuts.

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