

Abstract Submitted
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Model Independent Extraction of the Proton Charge Radius from PRad data¹ GIL PAZ, Wayne State University — The proton radius puzzle has motivated several new experiments that aim to extract the proton charge radius and resolve the puzzle. Recently PRad, a new electron-proton scattering experiment at Jefferson Lab, reported a proton charge radius of $0.831 \pm 0.007_{\text{statistical}} \pm 0.012_{\text{systematic}}$. The value was obtained by using a rational function model for the proton electric form factor. We perform a model-independent extraction using z -expansion of the proton charge radius from PRad data. We find that the model-independent statistical error is more than 50% larger compared to the statistical error reported by PRad.

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