

Abstract Submitted
for the DNP17 Meeting of
The American Physical Society

Nucleon Axial-Vector Form Factors from Lattice QCD HUEY-WEN LIN, Michigan State University, PNDME COLLABORATION — We present high-statistics results for the nucleon isovector axial form factors from a $2 + 1 + 1$ -flavor lattice calculation, including 2 ensembles at physical pion mass and 3 lattice spacings. High-statistics estimates allow us to quantify systematic uncertainties in the extraction of $G_A(Q^2)$ with \mathcal{M}_A estimated to be $1.39(28)$ GeV, which is close to the value obtained by the miniBooNE collaboration ($1.35(17)$ GeV). If time allows, we will also discuss the partially conserved axial current (PCAC) relation in our calculations.

Huey-Wen Lin
Michigan State University

Date submitted: 30 Jun 2017

Electronic form version 1.4