

Abstract Submitted
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Improved input for multi-reaction hadronic analyses from elastic pion-nucleon scattering¹ JOSEPH REVIER, George Washington Univ, DEBORAH ROENCHEN, Universit at Bonn, MICHAEL DOERING, RONALD WORKMAN[†], George Washington Univ — In the search for missing baryonic resonances, many analyses include data from a variety of pion and photon induced reactions. For elastic πN scattering, however, usually the partial waves of the SAID or other groups are fitted, instead of data. We provide the partial-wave covariance matrices needed to perform correlated χ^2 fits, in which the obtained χ^2 equals the actual χ^2 up to non-linear and normalization corrections. For any analysis relying on partial waves extracted from elastic pion scattering, this is a prerequisite to assess the significance of resonance signals and to assign any uncertainty on results. The compilation of the necessary data to improve hadronic analyses is presented in detail.

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