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Constraining single energy partial wave analysis

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We perform partial wave analysis of the eta photo production data. In an iterative procedure, fixed-t amplitude analysis (FT AA) and conventional single energy partial wave analysis (SE PWA) are coupled in such a way that output from one analysis is used as an constraint in another. The fixed-t analyticity in the fixed-t amplitude analysis is imposed by using Pietarinen's expansion method known from Karlsruhe-Helsinki analysis of pion-nucleon scattering data. As a result, multipoles are consistent with fixed-t analyticity and with fixed-s analyticity as well. By construction, invariant amplitudes fulfill required crossing symmetry.

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