Abarbanel, H. D. I.; **Saunders, L. M.**

Laplace transforms and the diagonalization of Bethe-Salpeter equations for absorptive parts.

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Summary: A Laplace transform is developed for the crossed-channel partial-wave analysis of Bethe-Salpeter-like equations for the absorptive part of scattering matrix elements. The transform requires no assumption about rotating contours to a Euclidean region and allows from the outset power growth in energy of the transformed absorptive part. This eliminates the need for any analytic continuation after the transformation. The diagonalization of the forward and nonforward equations with arbitrary irreducible kernels is explicitly carried out.

For a scan of this review see the web version.

MSC:

81Q40 Bethe-Salpeter and other integral equations arising in quantum theory
44A10 Laplace transform

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