

Prony methods for extracting excited states

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A Prony method is an algebraic approach to extracting spectral energies from hadronic correlation functions. The simplest example is the effective mass commonly used in lattice gauge theory. We show our exploration of this method to extract multiple excited states for a pion point-point correlation function for an SU(3) gauge theory with 8 flavors. We discuss our approach for dealing with close lying states and noisy data.

Primary author: Ms CUSHMAN, Kimmy (Yale University)

Co-author: Prof. FLEMING, George (Yale University)

Presenter: Ms CUSHMAN, Kimmy (Yale University)

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