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Sparse modeling approach to extract spectral functions with covariance of Euclidean-time correlators of lattice QCD

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We present our sparse modeling study to extract spectral functions from Euclidean-time correlation functions. In this study covariance between different Euclidean times of the correlation function is taken into account, which was not done in previous studies. In order to check applicability of the method, we firstly test it with mock data which imitate possible charmonium spectral functions. Then, we extract spectral functions from correlation functions obtained from lattice QCD at finite temperature.

Topical area

Algorithms and Artificial Intelligence

Primary authors: TAKAHASHI, Junichi (Meteorological College); OHNO, Hiroshi (University of Tsukuba); TOMIYA, Akio (IPUT Osaka)

Presenter: TAKAHASHI, Junichi (Meteorological College)

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