42nd International Symposium on Lattice Field Theory (Lattice 2025)



Contribution ID: 269 Type: Talk

Moment problems and spectral functions

Thursday 6 November 2025 15:30 (20 minutes)

Methods based on analyticity, such as Nevanlinna-Pick interpolation, have the promise of providing rigorous constraints on real-time observables (e.g. spectral functions), assuming only causal consistency of the underlying euclidean data. In this talk, I will review recently discovered connections between Nevanlinna-Pick interpolation and moment problems, which provide a discrete euclidean time analog to Nevanlinna-Pick interpolation for reconstructing spectral functions, as well connections to Krylov-space methods for correlator analyses (Lanczos/Rayleigh-Ritz).

Parallel Session (for talks only)

Theoretical developments and applications beyond Standard Model

Authors: OARE, Patrick; ABBOTT, Ryan (Columbia University); JAY, William (Colorado State University)

Presenter: ABBOTT, Ryan (Columbia University)

Session Classification: Theoretical developments and applications beyond Standard Model