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Progress in Reconstructing the Hadronic Tensor from Euclidean Correlators

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Calculations in lattice QCD are typically carried out in Euclidean time. Many quantities of physical interest require analytic continuation from Euclidean to Minkowski spacetime. This Wick rotation enacting a spectral reconstruction presents a difficult challenge in numerical inversion. We report on work to replicate the calculation by Alexandrou, *et al.* of the smeared R-ratio from lattice datasets computed via the Hansen-Lupo-Tantalo method using Domain Wall and Staggered fermion actions. Although computationally advantageous, staggered fermions present certain additional challenges for spectral reconstructions. In addition to the R-ratio, we also report on a Euclidean window quantity for the HVP contribution to the muon anomaly using the spectral reconstruction technique.

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