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NRQCD Bottomonium at non-zero temperature using time-derivative moments

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We will discuss our recent results for the thermal mass and width of bottomonium. A well-known challenge for the lattice community is calculating the spectral function from the Euclidean correlator. We have approximated the spectral function and derived the mass and width of particles through the time derivatives of the lattice correlator.

We have focused on extracting the properties of bottomonium states, specifically Upsilon and χ_{b1} , from lattice correlators. We will give an overview of the time-derivative moments approach and look at results for the temperature dependence of the mass and width of both bottomonium states. The zero temperature results are consistent with experimental values, while results at higher temperatures are similar to those obtained using other methods.

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