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Quarkonium in the QGP from unquenched lattice QCD

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We present unquenched correlator data and corresponding reconstructed spectral functions for quarkonium. Correlators are obtained using clover-improved Wilson fermions on $N_f = 2 + 1$ HISQ lattices. Valence quark masses are tuned to their physical values by comparing the mass spectrum obtained from the lattice QCD with experimental values. For the spectral reconstruction, we use models based on perturbative spectral functions from different frequency regions like resummed thermal contributions around the threshold from pNRQCD and vacuum contributions well above the threshold. We show preliminary results of the reconstructed spectral function obtained for the first time in our study for full QCD. In addition, we compare the results with the previous continuum extrapolated results in the quenched approximation.

Declaration

I certify that I have checked that I am authorised to submit the abstract with the listed co-authors with their current affiliations

Change of Speaker

I understand that change of speaker is allowed provided that no participant gives more than one talk. Otherwise, we will ask the speaker to choose between one or the other abstract to be presented.

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