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Spectral Functions from anisotropic Lattice QCD.

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The FASTSUM collaboration has been carrying out lattice simulations of QCD for temperatures ranging from one third to twice the critical temperature, investigating the chiral and deconfining aspects of the transition, as well as the properties of the Quark Gluon Plasma.

In this contribution we concentrate on spectral functions and on some of the associated transport coefficients. We work in a fixed scale scheme and use anisotropic lattices which help achieving the desirable fine resolution in the temporal direction, thus facilitating the (ill posed) integral transform from imaginary time to frequency space. We study the pattern of sequential dissociation for charmonium and bottomonium, and analyse the temperature dependence of the masses and width of the surviving states. The results are obtained with a physical strange mass, a pion mass of 400 MeV, and a lattice spacing of 0.12 fm. Simulations at the physical pion mass and with a finer lattice spacing are in progress and their status might be reported as well.

On behalf of collaboration:

[Other]

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