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Holographic models for heavy vector mesons

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Holographic AdS/QCD models provide a tool for calculating the spectra of glueballs and light mesons and baryons. In this talk we discuss some recent AdS/QCD models that extend the hadronic description to the case of heavy vector mesons.

Then we consider the finite temperature version of such a model in order to represent the thermal effects of a medium like the plasma in the states of heavy mesons. We show that it is possible to describe of the thermal behavior of the states 1S, 2S and 3S of bottomonium and charmonium.

The corresponding spectral function exhibits a consistent picture for the melting of the states where, for each flavor, the higher excitations dissociate at lower temperatures. A very clear distinction between the heavy flavors emerges, with bottomonium state $\Upsilon(1S)$ surviving deconfinement transition at temperatures much larger than the critical deconfinement temperature of the medium.

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