Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

Analysis of quarkonia at finite temperature from complex Borel sum rules KEN-JI ARAKI, KEI SUZUKI, Tokyo Institute of Technology, PHILLIP GUBER, RIKEN, MAKOTO OKA, Tokyo Institute of Technology — Recently, we proposed a new type of QCD sum rules i.e. the complex Borel sum rules (CBSR) [1]. It has been found that the CBSR is superior to the conventional QCD sum rules from the point of view of the maximum entropy method (MEM) analysis. Specifically, we have demonstrated that our novel method can be used to study the excited states of hadrons. The suppression of quarkonium states (e.g. J/psi and upsilon) is an important signature of the hot matter produced in relativistic heavy-ion collisions at RHIC and LHC. Recently, the behavior of the excited states at finite temperature, which can be different from the ground state, has attracted much attention. The suppression of the charmonium and bottomonium ground states has already been analyzed by conventional QCD sum rules with MEM [2,3]. In this talk, we report on the results of a reanalysis by CBSR with MEM to investigate the thermal behavior of the quarkonium excited states.

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Date submitted: 01 Jul 2014 Electronic form version 1.4