

# 10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



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Type: **Poster Presentation**

## Heavy Quark Nuclear Modification at Forward Rapidity in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV

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Experimental results from RHIC and LHC show an indication of a mass ordering on the quark energy loss when crossing the hot and dense medium formed in A+A collisions. The ordering is more evident at low  $p_T$  region, where the quark mass is more relevant for the energy loss mechanisms. However, this final-state quark energy loss competes with other effects such as nuclear shadowing and initial-state energy loss which may also depend on the quark mass. This presentation is going to show the status of the analysis of charm and bottom nuclear modification ( $R_{AA}$ ) in the rapidity  $1.2 < |y| < 2.2$  at  $\sqrt{s_{NN}} = 200$  GeV. These measurements are performed by the PHENIX forward vertex detectors and muon arms using the  $B \rightarrow J/\psi + X$  and muon decay channels. This rapidity region allows the exploration of different initial-state effect contributions to the heavy flavor  $R_{AA}$ . Besides, the forward measurements have more access to the low- $p_T$  region because of the additional boost of the non-prompt decay products from heavy flavor hadrons.

### Collaboration (if applicable)

PHENIX

### Track

Initial State

### Contribution type

Contributed Talk

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