

1 **Measurement of the Υ production in heavy-ion collisions at the**
2 **top RHIC energy with the STAR detector**

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5 Measurements of the ground and excited heavy quarkonium states in heavy-ion collisions
6 provide a powerful tool to study the properties of the Quark-Gluon Plasma (QGP). Due
7 to the color screening effect, the dissociation of heavy quarkonium was proposed as a
8 direct signature of the QGP formation. Compared to charmonia, bottomonia are cleaner
9 probes because of negligible regeneration contribution at the top RHIC energy. Moreover,
10 different Υ states are expected to dissociate at different temperatures depending on their
11 binding energies. Measurement of such sequential suppression of the Υ states can be used
12 to study the modification of the QCD force in the medium and the QGP's thermodynamic
13 properties.

14 In this talk, we report the Υ measurements in Au+Au collisions, and new measurements
15 in isobar (Ru+Ru and Zr+Zr) collisions at $\sqrt{s_{NN}} = 200$ GeV by the STAR experiment at
16 RHIC. The yields and nuclear modification factors are presented as a function of centrality
17 and transverse momentum. In addition, the results are compared to those at the LHC as
18 well as theoretical calculations.