



Physics & Astronomy Colloquium

Fall 2011

The Bottom Line on Heavy-ion Collisions

The highest energy colliders for heavy ion collisions, RHIC and LHC, are producing nuclear matter at extremely high energy densities. One of the most promising ways to study how dense and how hot the matter gets, and in particular if the nucleus melts into its constituents quarks and gluons, is to see what happens to particles made of charm and bottom quarks. There is a long history of looking for a suppression of charmonium production as a signature of quark-gluon plasma formation. With the increased center of mass energy at RHIC and LHC, we are beginning to peek at the bottom quarks through bottomonium production. I will review the experimental results on heavy quark production at RHIC and LHC, with emphasis on the news we have obtained from studies of bottom quarks and their hadrons.

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**Thursday, October 20, 2011
4:00-5:20 PM - MND 1015**

Open & Free to all Students, Faculty & Public