

# DIS 2015 - XXIII. International Workshop on Deep-Inelastic Scattering and Related Subjects

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## PHENIX heavy-flavor results in d+Au collisions

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Charm and bottom quarks are formed predominantly by gluon fusion in the initial hard scatterings of heavy-ions at RHIC, so they are good probes of the full medium evolution. In order to further understand the heavy quark dynamics in the hot medium, it is essential to study modifications due to the intrinsic nuclear matter so called cold nuclear matter effects. Deuteron(proton)-gold collisions are considered as a control experiment to study this kind of effects, but recent results from central  $d(p)+A$  collisions also suggest formation of a small thermalized system. The PHENIX experiment has an excellent ability to measure leptons decaying from charm/bottom hadrons at wide kinematic range. These results will be key measurement to understand evolution of medium effects from  $p+p$  collisions to heavy-ion collisions. In this talk, measurements of heavy quark production from  $p+p$  and  $d+Au$  collisions in PHENIX will be presented and discussed with several model calculations.

**Primary author:** LIM, Sanghoon (Yonsei University)

**Presenter:** LIM, Sanghoon (Yonsei University)

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