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# Open heavy flavour production in heavy ion collisions

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Heavy flavor observables provide valuable information on the properties of the hot and dense quark gluon plasma (QGP) created in ultrarelativistic nucleus-nucleus collisions. Various microscopic models have successfully described many of the observables associated with its formation. Their transport coefficients differ, however, due to different assumptions about the underlying interaction of the heavy quarks with the plasma constituents, different initial geometries and formation times, different hadronization processes, and a different time evolution of the QGP as well as by different transport equations for the heavy quarks. Recently the different groups joined efforts to investigate systematically how these assumptions influence the heavy quark properties at the end of the QGP expansion. For this purpose the same initial condition and the same model for the QGP expansion has been imposed on these models and the influence on RAA and v2 as well as the difference in box calculations has been studied. We report about these results and identify what steps are necessary to reduce the present ambiguities.

Y. Xu et al. Phys.Rev. C99 (2019) 014902
S.Cao et al. Phys.Rev. C99 (2019) 054907
T. Song et al. arXiv:2001.07951

## Collaboration (if applicable)

## Track

Heavy Flavor and Quarkonia

## Contribution type

Contributed Talk

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