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## Heavy flavors in quark gluon plasma: group chasing of the transport coefficients

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### Content

Since a decade, the ultrarelativistic heavy ion collisions (URHIC) community has accumulated strong evidence that a collective state of deconfined but strongly interacting matter is achieved in those collisions, performed both at RHIC or LHC colliders. It is also established that heavy quarks (HQ) created at the initial stage of the URHIC finally stem out with some lack thermalization, which acts as a gauge of their interaction strength with the medium, given that their production is essentially restricted to the initial hard scattering of the incoming nucleons. This offers a pretty unique possibility to investigate the coupling of heavy quarks with the QGP ? e.g. the transport coefficients - and then learn more about this new state of matter, as well as to gain some quantitative information on the partonic densities reached before the freeze out. Due to the lack of complete tractable theory allowing a precise evaluation, several models were developed by various groups in the recent years in order to reproduce the most significant observables like the nuclear modification factor and the elliptic flow and then be able to constrain the transport coefficients. However, due to the different implementations and underlying assumptions pertaining to various inputs, the ?predictions? obtained with this method differ quite a while. In my contribution, I will report on some recent collective initiatives aiming, for the first time, at a comparison of those inputs in order to converge towards a more robust extraction of the HQ transport coefficients in the quark gluon plasma and discuss some perspectives for the future of this field.

### Session

Hadronic final states in high pt interactions

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**Session Classification** : Hadronic final states in high pT interactions (II)