



Contribution ID: 92

Type: **Talk**

### On nonequilibrium quarkonium evolution in the QGP fireball

*Sunday, 5 August 2018 15:00 (20 minutes)*

A Lindblad equation for the evolution of heavy quarkonia in QGP has recently been derived from potential non-relativistic QCD (pNRQCD) and open quantum system framework. We derive the classical limit of the evolution equations for color-singlet and color-octet quarkonia states. Within the classical approximations, we are able to write the evolution equations respectively as a Langevin equation and Boltzmann equations in two different regimes. This allows us to identify the difference between quantum and classical evolution, and examine the effect of classical approximations.

**Primary authors:** VAIRO, Antonio; BRAMBILLA, Nora; VANDER GRIEND, Peter (University of Washington); ZHU, Yan (University of Jyväskylä)

**Presenter:** ZHU, Yan (University of Jyväskylä)

**Session Classification:** Deconfinement

**Track Classification:** D: Deconfinement