QUARK MATTER 2015
Sep. 27 – Oct. 3, 2015 Kobe, Japan

Contribution ID: **633**   Type: **Contributed talk**

Subjet structure as a discriminating quenching probe

Monday, 28 September 2015 17:40 (20 minutes)

Jets have proven to be a powerful experimental tool to ascertain the properties of the QGP. In this work, we propose a new class of jet substructure observables which, unlike fragmentation functions, are largely insensitive to the poorly known physics of hadronization. We show that intra jet sub-jet structures provide us with a large discriminating power between different jet quenching Monte Carlo implementations. Further, this new class of observables proves instrumental to isolate with high purity samples of strongly modified jets where the competing mechanisms of energy loss can be more easily disentangled.

On behalf of collaboration:

NONE

Primary authors: TEIXEIRA DE ALMEIDA MILHANO, Guilherme (Instituto Superior Tecnico (PT));   APOLINARIO, Liliana (Instituto Superior Tecnico (PT));   PLOSKON, Mateusz (Lawrence Berkeley National Lab. (US));   ZHANG, Xiaoming (Lawrence Berkeley National Lab. (US))

Presenter: ZHANG, Xiaoming (Lawrence Berkeley National Lab. (US))

Session Classification: Jets and High pT Hadrons II

Track Classification: Jets and High pT Hadrons