



**HEP 2013
Stockholm
18-24 July 2013**



Contribution ID: 825

Type: **Talk presentation**

Heavy-quarkonium suppression in p-A collisions from parton energy loss in cold QCD matter

Friday, 19 July 2013 09:16 (20 minutes)

The effects of parton energy loss in cold nuclear matter on heavy-quarkonium suppression in p-A collisions are studied. It is shown from first principles that at large quarkonium energy E and small production angle in the nucleus rest frame, the medium-induced energy loss scales as E . Using this result, a phenomenological model depending on a single free parameter is able to reproduce J/psi and Upsilon suppression data in a broad x_F and p_T range and at various center-of-mass energies. These results strongly support energy loss as the dominant effect in heavy-quarkonium suppression in p-A collisions. Predictions for J/psi and Upsilon suppression in p-Pb collisions at the LHC are made.

Primary author: ARLEO, Francois (LAPTH, Annecy-le-Vieux)

Presenter: ARLEO, Francois (LAPTH, Annecy-le-Vieux)

Session Classification: Ultrarelativistic Heavy Ions

Track Classification: Ultrarelativistic Heavy Ions