



Contribution ID: 23

Type: **not specified**

## **Diffractive onium - nucleus scattering and genealogy of partonic evolution**

*Monday 24 June 2019 12:15 (25 minutes)*

We present a partonic picture for diffractive onium - nucleus scattering from which the distribution of rapidity gap in a certain kinematic region can be deduced. This picture allows us to draw a parallel between diffractive dissociation and the genealogy of partonic evolution, the latter being essentially similar to a branching - diffusion process. In particular, we show that the rapidity gap distribution corresponds to the distribution of the splitting time of the most recent common ancestor of the partons whose transverse momenta are larger than the nuclear saturation scale, when the scattering process is viewed in the restframe of the nucleus. Numerical calculations are also implemented to support the analytical predictions.

### **Additional comments**

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**Session Classification:** Session 1

**Track Classification:** Diffraction and Central Exclusive Production