

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 472

Type: **Contributed Talk**

## Hybrid high-energy/collinear factorization in a heavy-light dijets system reaction

*Wednesday, 14 April 2021 10:20 (20 minutes)*

We propose the inclusive hadroproduction of a heavy-light dijet system, as a new channel for the investigation of high energy QCD. We build up an hybrid factorization that incorporates a partial next-to-leading BFKL resummation inside the standard collinear description of observables. We present a detailed analysis of different observables: cross-section summed over azimuthal angles and differential in rapidity, ratio of azimuthal coefficients differential in rapidity, heavy-jet transverse momentum distribution and azimuthal distribution. The stability that these distributions show under higher-order corrections motivates our interest in future studies. Here, the hybrid factorization could help to deepen our understanding of heavy-flavor physics in wider kinematic ranges, like the ones accessible at the Electron-Ion Collider.

**Primary authors:** FUCILLA, Michael (Università della Calabria); PAPA, Alessandro (Università della Calabria & INFN-Cosenza); CELIBERTO, Francesco Giovanni (ECT\*/FBK Trento & INFN-TIFPA); Dr BOLOGNINO, Andr e Dafne (Università della Calabria & INFN-Cosenza); Dr IVANOV, Dmitry Yu. (Sobolev Institute of Mathematics and Novosibirsk State University, Russia)

**Presenter:** FUCILLA, Michael (Università della Calabria)

**Session Classification:** QCD with Heavy Flavors and Hadronic Final States

**Track Classification:** QCD with Heavy Flavors and Hadronic Final States