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## Diffraction production from the Color-Glass-Condensate

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I will discuss that diffractive production at small- $x$ , including diffractive photo production of vector mesons and dijet can be a powerful probe of non-linear gluon-saturation dynamics [1,2]. In particular, I will focus on the diffractive dijet production at HERA and the LHC within the color-glass-condensate approach [2]. I will show that the  $t$ -distribution of photoproduction of dijet and vector mesons at large  $|t|$  offers a unique opportunity to discriminate among saturation and non-saturation models. I will also show that diffractive dijet correlations at small- $x$  exhibit some non-trivial novel features which are different from the inclusive two-particle correlations, like inclusive dijet, dihadron [3], diphoton [4] and photon-hadron [5] productions. Therefore, diffractive dijet photo-production at the LHC and future colliders provides useful complementary information about the underlying dynamics of particle production in the saturation regime.

- 1: N. Armesto and A. H. Rezaeian, Phys. Rev. D90, 054003 (2014).
- 2: T. Altinoluk, N. Armesto, G. Beuf and A. H. Rezaeian, under final preparation.
- 3: J. L. Albacete and C. Marquet, Phys. Rev. Lett. 105, 162301, (2010).
- 4: A. Kovner and A. H. Rezaeian, Phys. Rev. D 90, 014031 (2014).
- 5: J. Jalilian-Marian and A. H. Rezaeian, Phys. Rev. D86, 034016 (2012).

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