## **DPF2015**



Contribution ID: 76

Type: not specified

## N<sup>3</sup>LO threshold corrections for top-pair and single-top production

Tuesday, 4 August 2015 14:00 (30 minutes)

I present a calculation of higher-order corrections from NNLL threshold resummation for cross sections and differential distributions in top-antitop pair production and in single-top production. I show that soft-gluon threshold corrections are the dominant contribution to top-quark production and closely approximate exact results through NNLO. I show aN<sup>3</sup>LO results for the total  $t\bar{t}$  cross section, the top-quark  $p_T$  and rapidity distributions, and the top-quark forward-backward asymmetry. I also present aNNLO results for total cross sections and  $p_T$  distributions in *t*-channel, *s*-channel, and tW-channel single-top production.

## **Oral or Poster Presentation**

Oral

Primary author: KIDONAKIS, Nikolaos (Kennesaw State University)Presenter: KIDONAKIS, Nikolaos (Kennesaw State University)Session Classification: Top Physics

Track Classification: Top Physics