Contribution ID: **468** Type: **Poster**

Universality of multiplicity distribution in proton-proton and electron-positron collisions

Tuesday, 29 September 2015 16:30 (2 hours)

I show that the charged particle multiplicity distribution in proton-proton (p+p) collisions, which is often parameterized by the negative binomial distribution, results from the multiplicity distribution measured in electron-positron collisions, once the fluctuating energy carried by two leading protons in p+p is taken into account. It is suggestive of a universal mechanism of particle production in both systems, controlled mainly by the actual energy deposited into particle creation. Its consequences for p+A and A+A physics will be discussed.

Based on: A.Bzdak, arXiv:1507.01608 [hep-ph]

On behalf of collaboration:

NONE

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Session Classification: Poster Session

Track Classification: Relations to Other Strongly Interacting Systems