PASCOS 2017



Contribution ID: 21 Type: Parallel talk

Constraining Z' widths from pT measurements in Drell-Yan processes

Tuesday 20 June 2017 17:15 (15 minutes)

We define a Focus Point (FP) Asymmetry, $A_{\rm FP}$, obtained by integrating the normalised transverse momentum distribution of either lepton produced in the Drell-Yan (DY) process below and above a point where a variety of popular Z' models all have the same magnitude.

For a given Z' mass the position of this FP is predictable, depending only on the collider energy and on the low transverse momentum cut chosen in the normalisation procedure.

The resulting $A_{\rm FP}$ is very sensitive to the Z' width, and can be used to constrain this parameter in experimental fits.

Presentation type

Parallel talk

Primary authors: FIASCHI, Juri (University of Southampton); ACCOMANDO, Elena (Southampton University); MORETTI, Stefano (STFC - Rutherford Appleton Lab. (GB)); SHEPHERD-THEMISTOCLEOUS, Claire (STFC - Rutherford Appleton Lab. (GB))

Presenter: FIASCHI, Juri (University of Southampton)

Session Classification: Parallel IV