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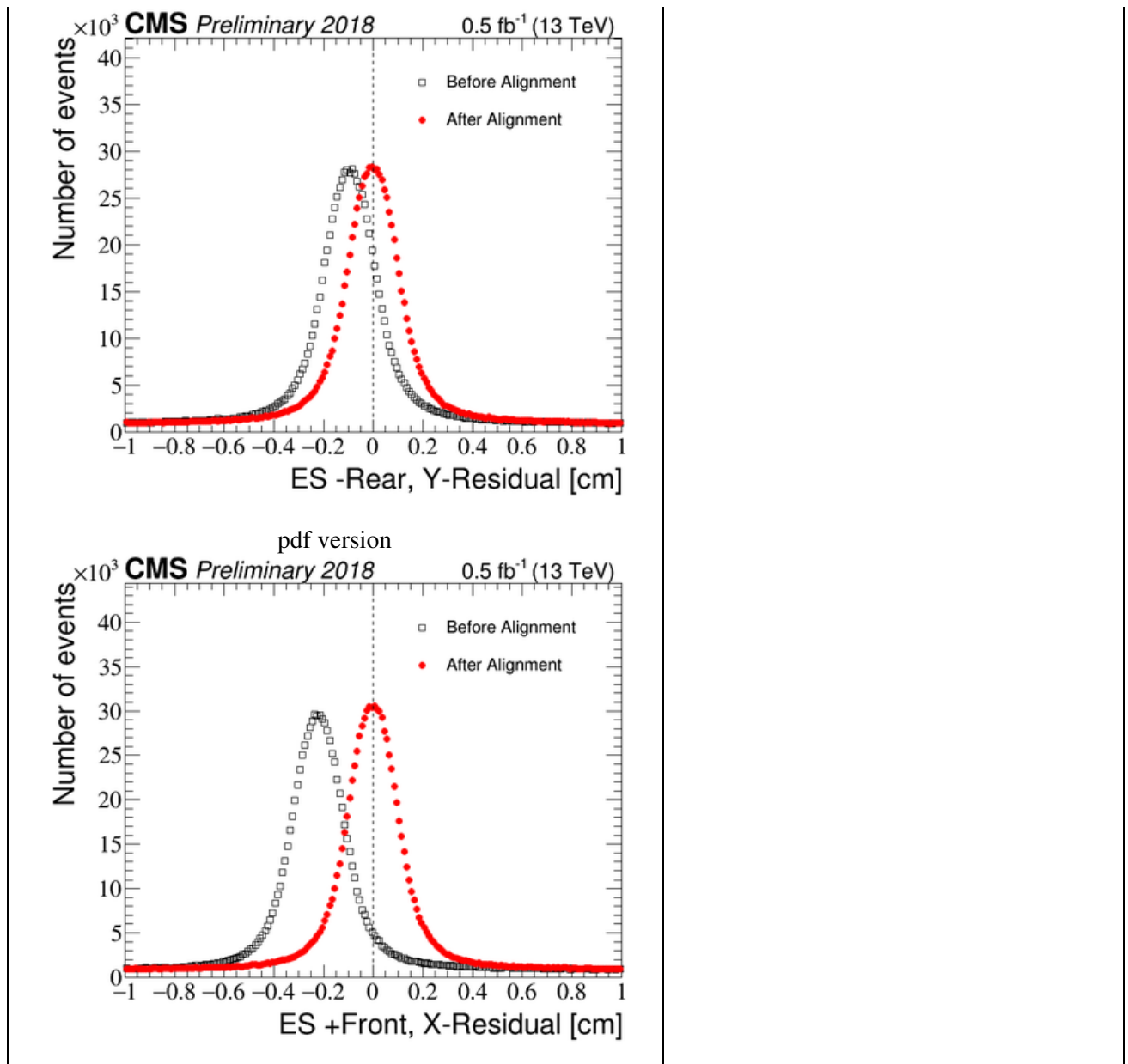
CMS ECAL with first 2018 data

Abstract: CMS ES alignment in 2018.

[CDS entry](#)

[iCMS entry](#)

Figure	Caption
<p>pdf version</p> <p>CMS Preliminary 2018 0.5 fb⁻¹ (13 TeV)</p> <p>Number of events $\times 10^3$</p> <p>ES +Rear, Y-Residual [cm]</p> <p>ES -Front, X-Residual [cm]</p> <p>pdf version</p>	<p>The CMS preshower detectors (ES) are silicon strip detectors located between the strip tracker and the ECAL endcap (EE) crystals. Each side consists of two detection disks (front and rear) with the front (rear) plane sensitive to the X(Y) direction. The ES records the position of charged particles which pass through. The coordinate of each plane is aligned offline with respect to the aligned tracker. The ES alignment algorithm starts by matching the expected hit point of reconstructed tracks with trajectory extrapolations to the data. A perturbative method minimizing the χ^2 value in the parameter space is then performed for several iterations until a stable result is reached with respect to the tracker. The plot shows the residual distribution before (black dots) and after (red dots) alignment for the four planes. The result after alignment is within the resolution of the silicon strips, ± 0.055 cm.</p>



-- AndreaMassironi - 2018-07-01

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