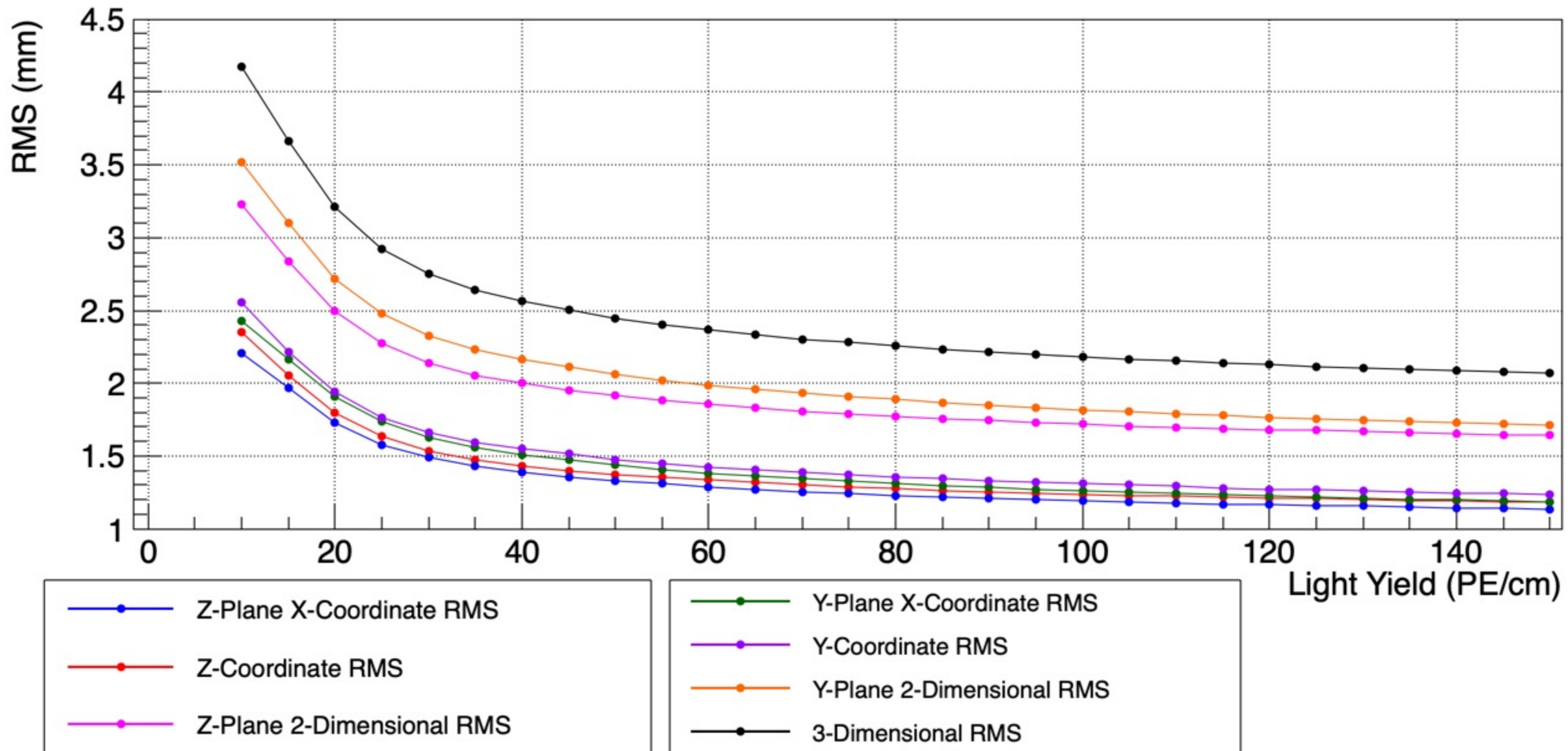
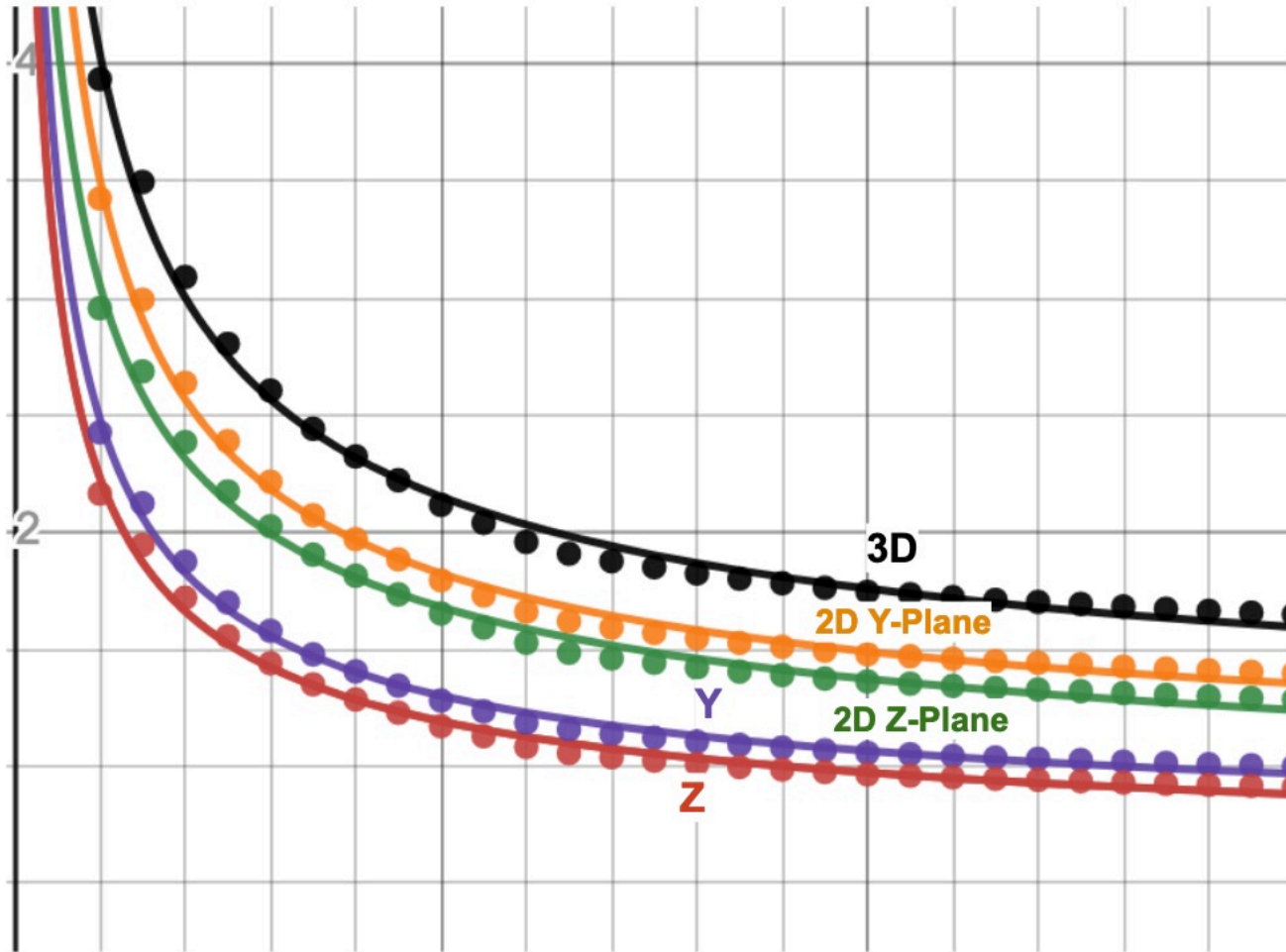


Fit RMS vs Light Yield



RMS of Gaussian fits vs light yield. The differences in RMS between the Y- and Z-Planes are the results of their relative positioning; the Z-Plane is in front of the Y-Plane and causes additional scattering and emission of secondaries. The 2- and 3-dimensional RMS is given by $\sigma_{xz} = \sqrt{\sigma_{x_1}^2 + \sigma_z^2}$ and $\sigma_{xyz} = \sqrt{\left(\frac{\sigma_{x_1} + \sigma_{x_2}}{2}\right)^2 + \sigma_y^2 + \sigma_z^2}$ respectively.

Fits to Inverse Power Function



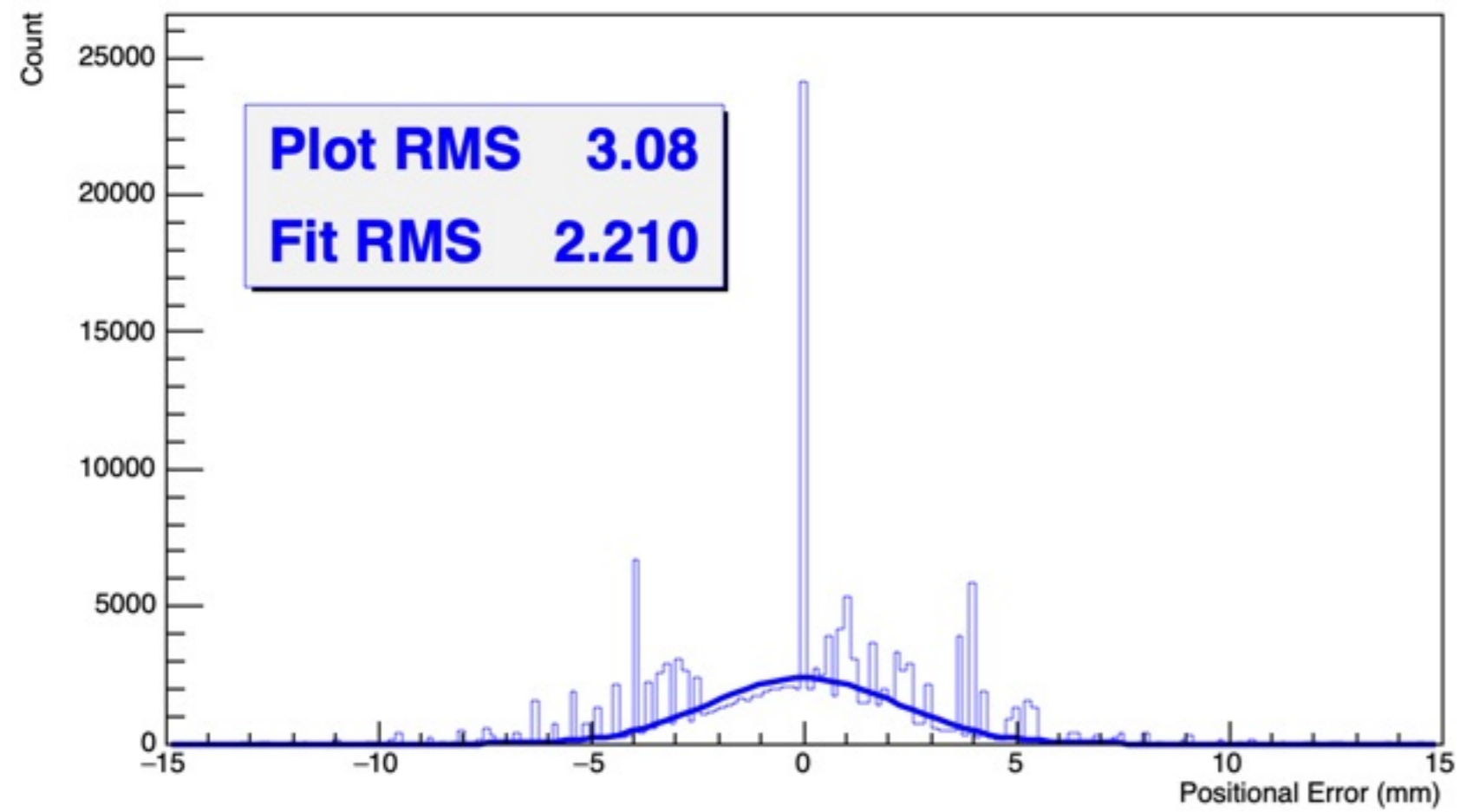
$$\sigma_i = A_i \left(\frac{1}{L^\lambda} + \Delta \right), R^2 = 0.997$$
$$\lambda = 0.61 \pm 0.05,$$
$$\Delta = 0.082 \pm 0.004$$

σ_i is the Core RMS of the double-Gaussian fit
and L is the light yield.

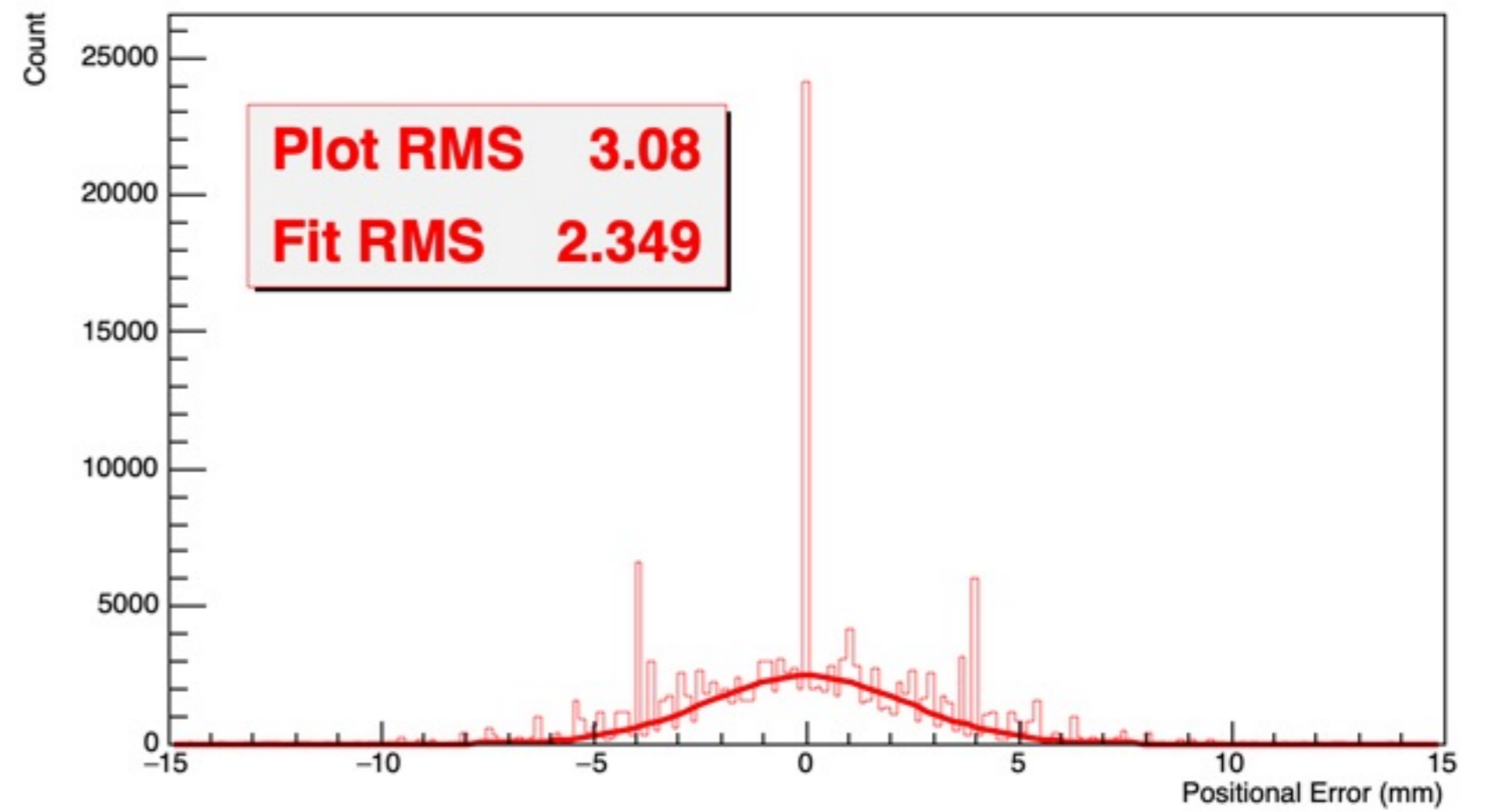
\Rightarrow For a given L , $\frac{\sigma_i(L)}{A_i \Delta}$ is the same for each coordinate.

**I.e. the proportion of RMS at a given
light yield to the asymptotic value is the
same for each coordinate.**

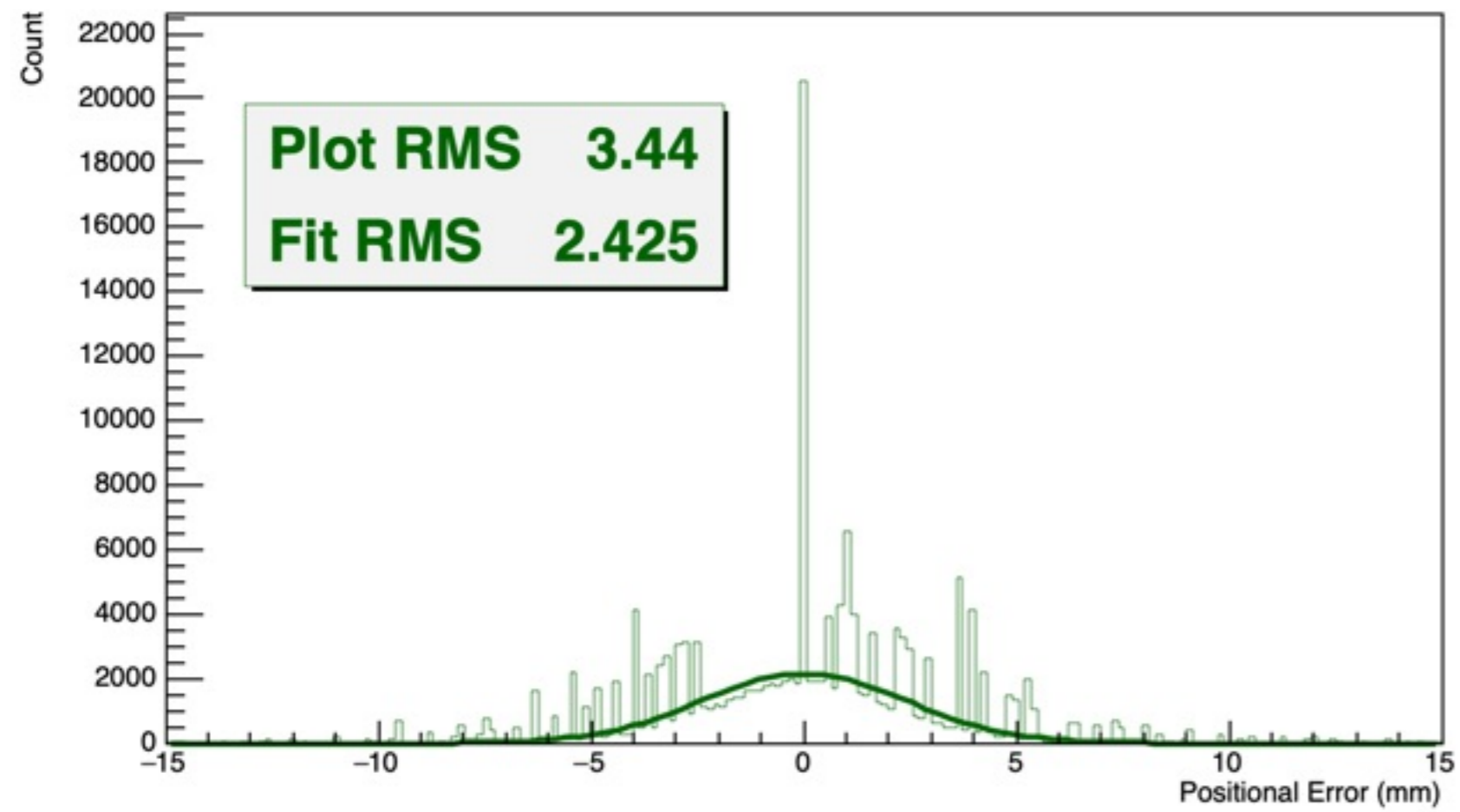
Positional Error - 10 PE/cm Yield, Z-Plane X



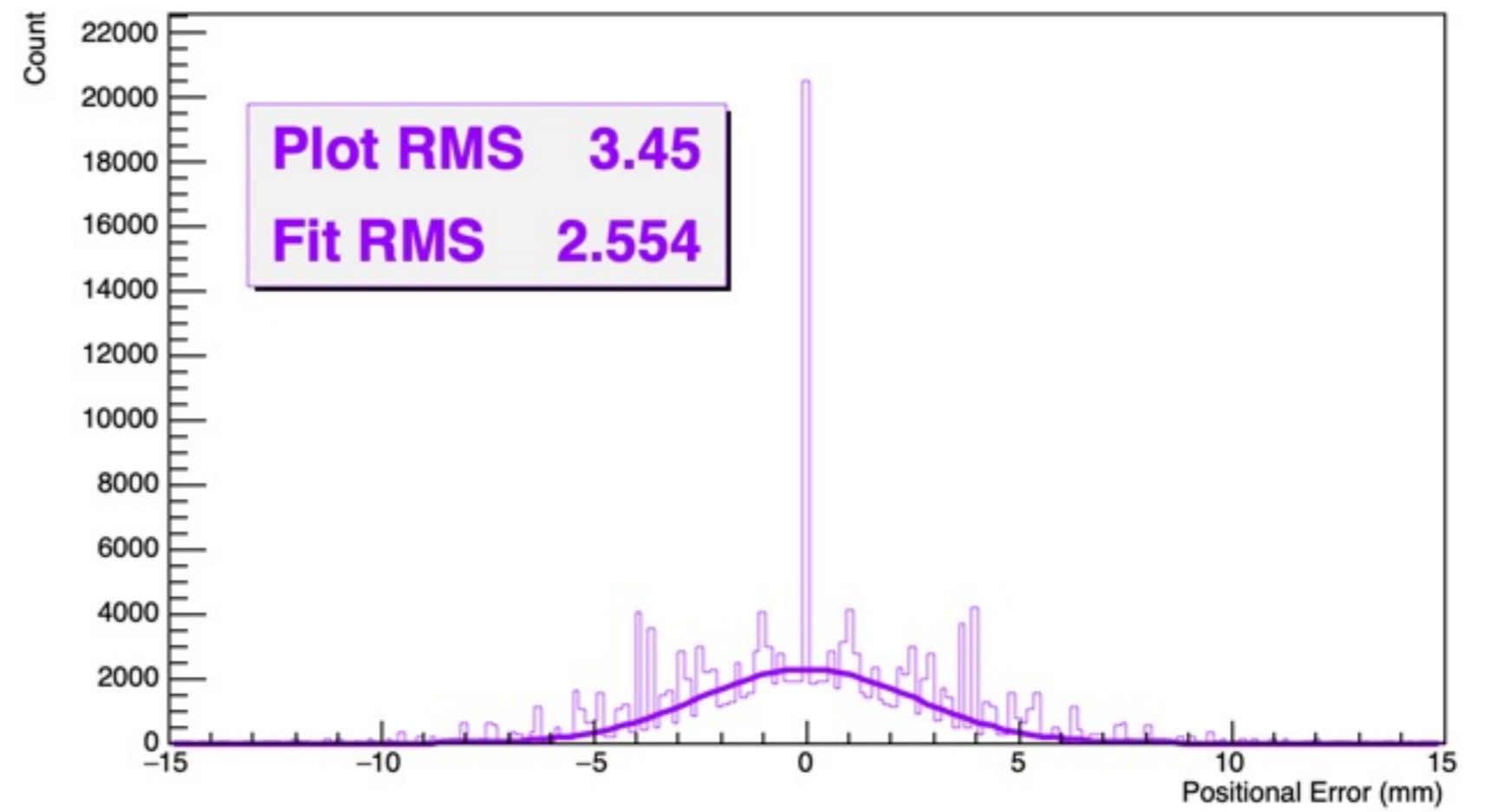
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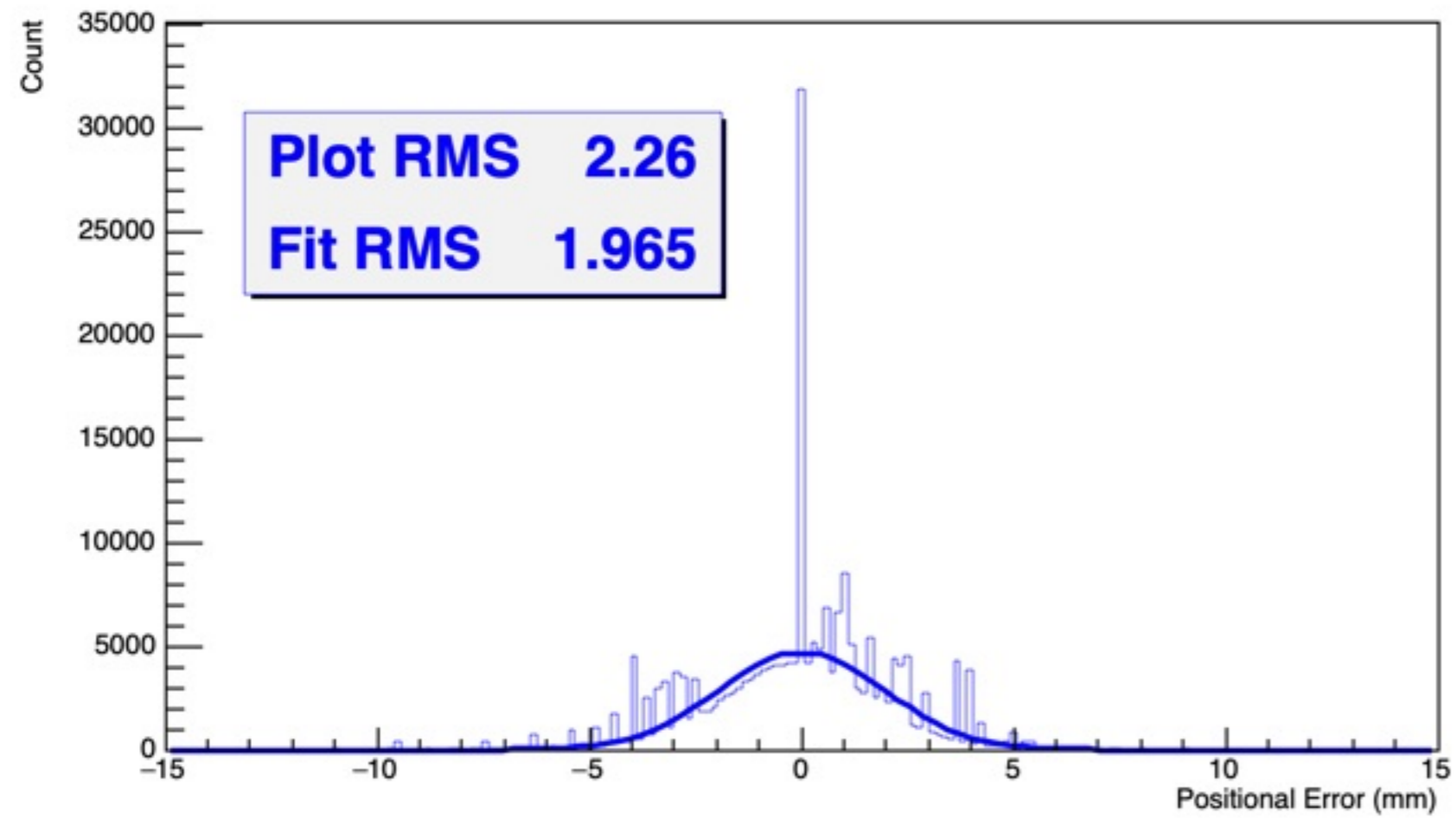
Y-Plane X



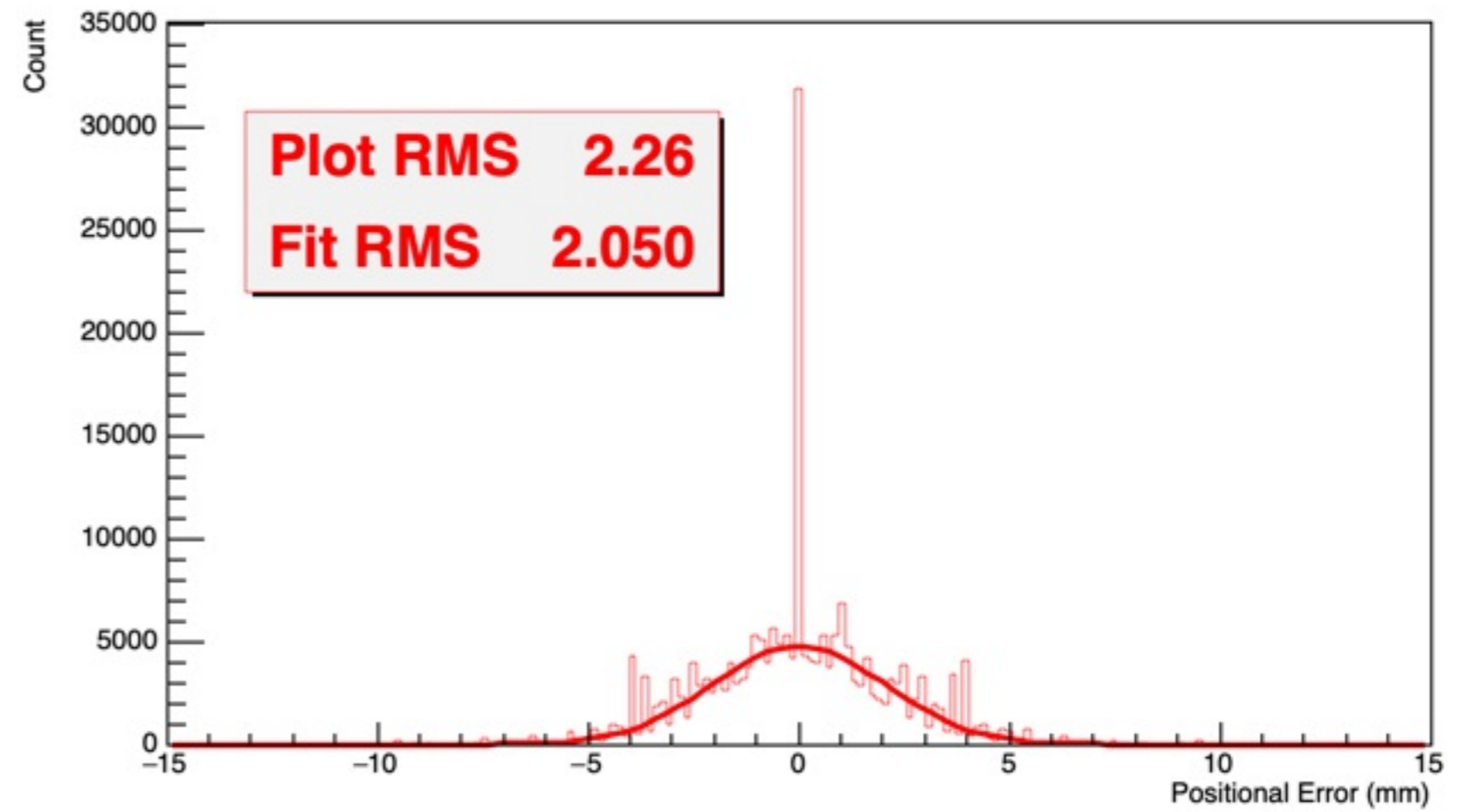
Y



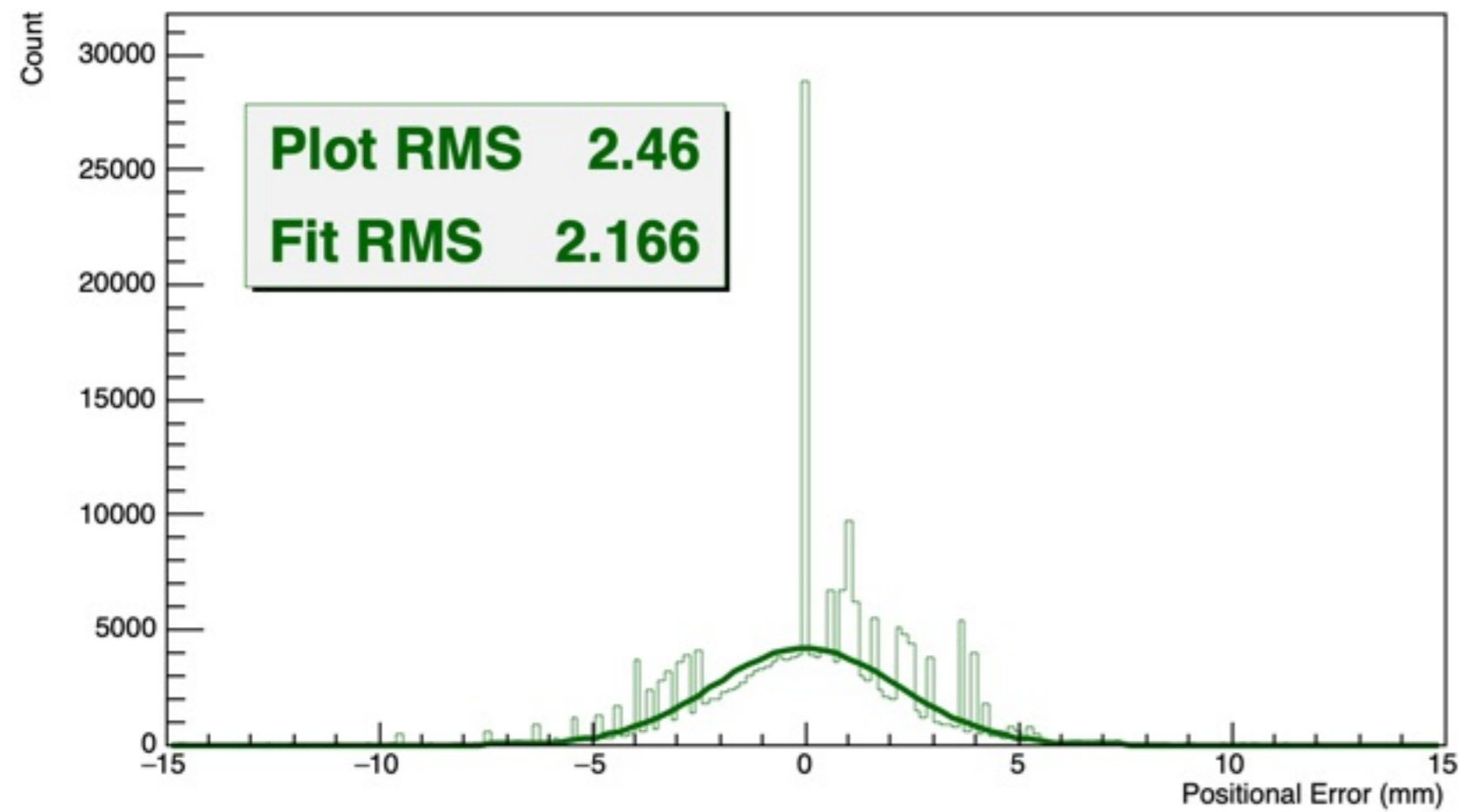
Positional Error - 15 PE/cm Yield, Z-Plane X



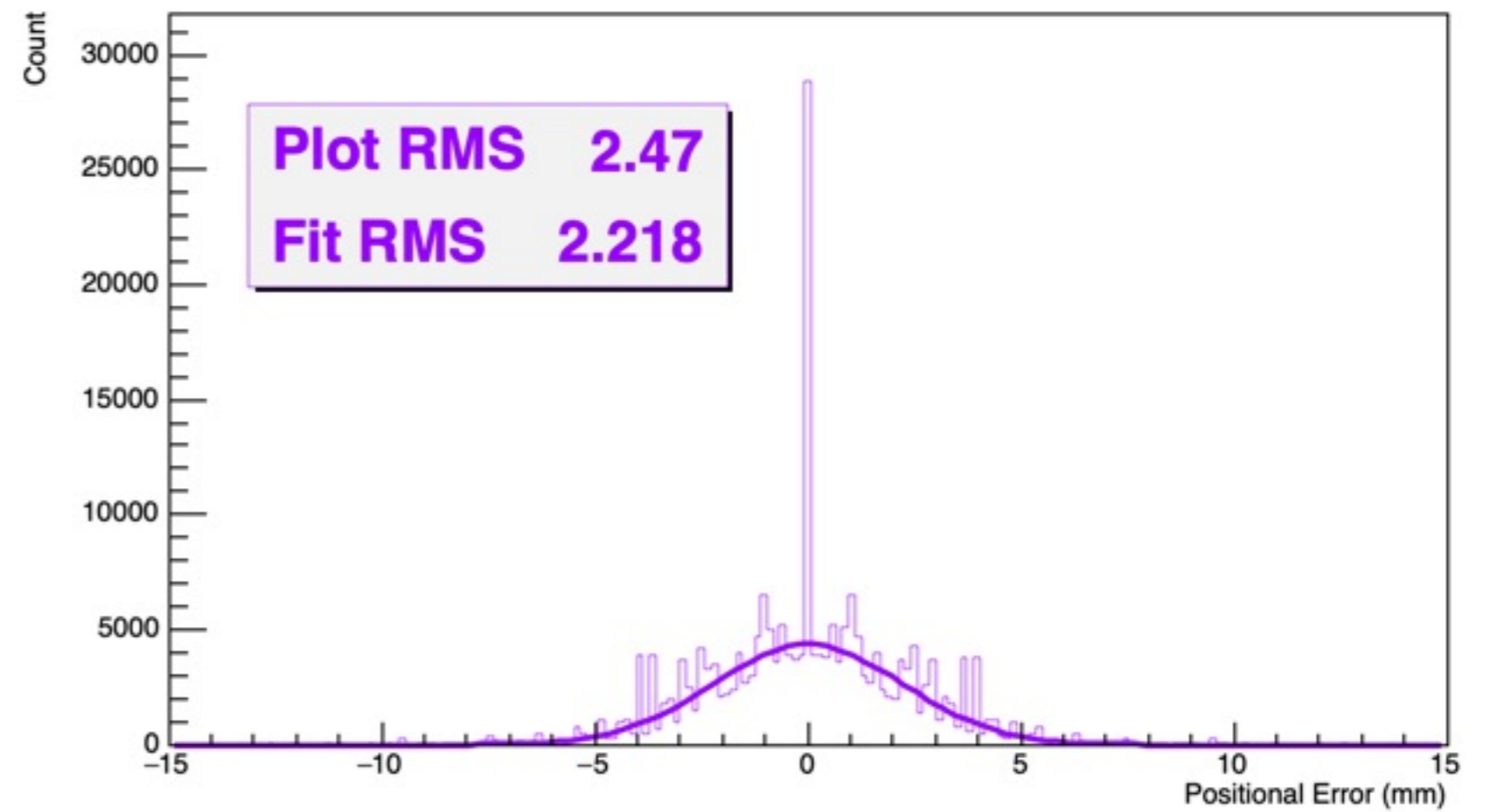
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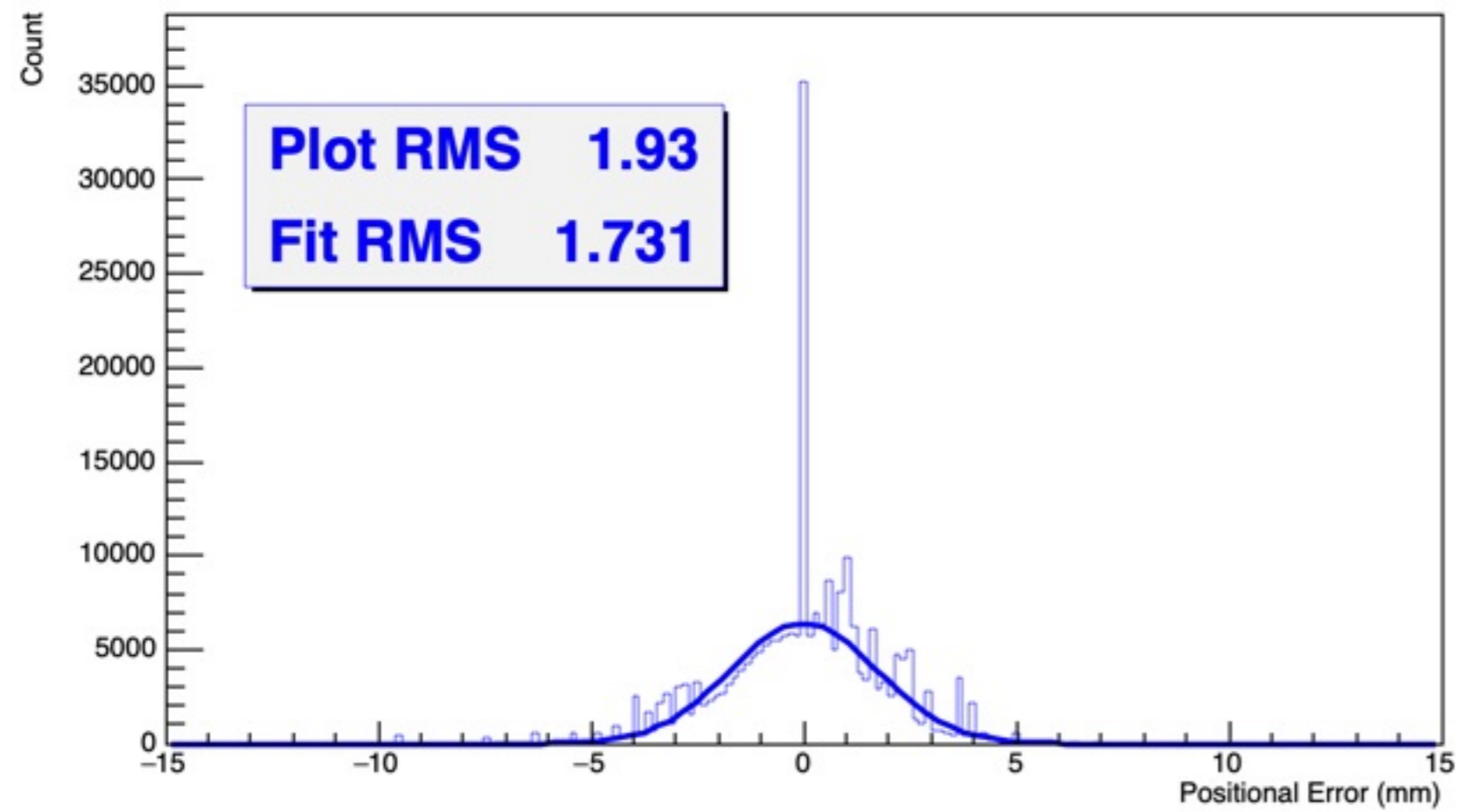
Y-Plane X



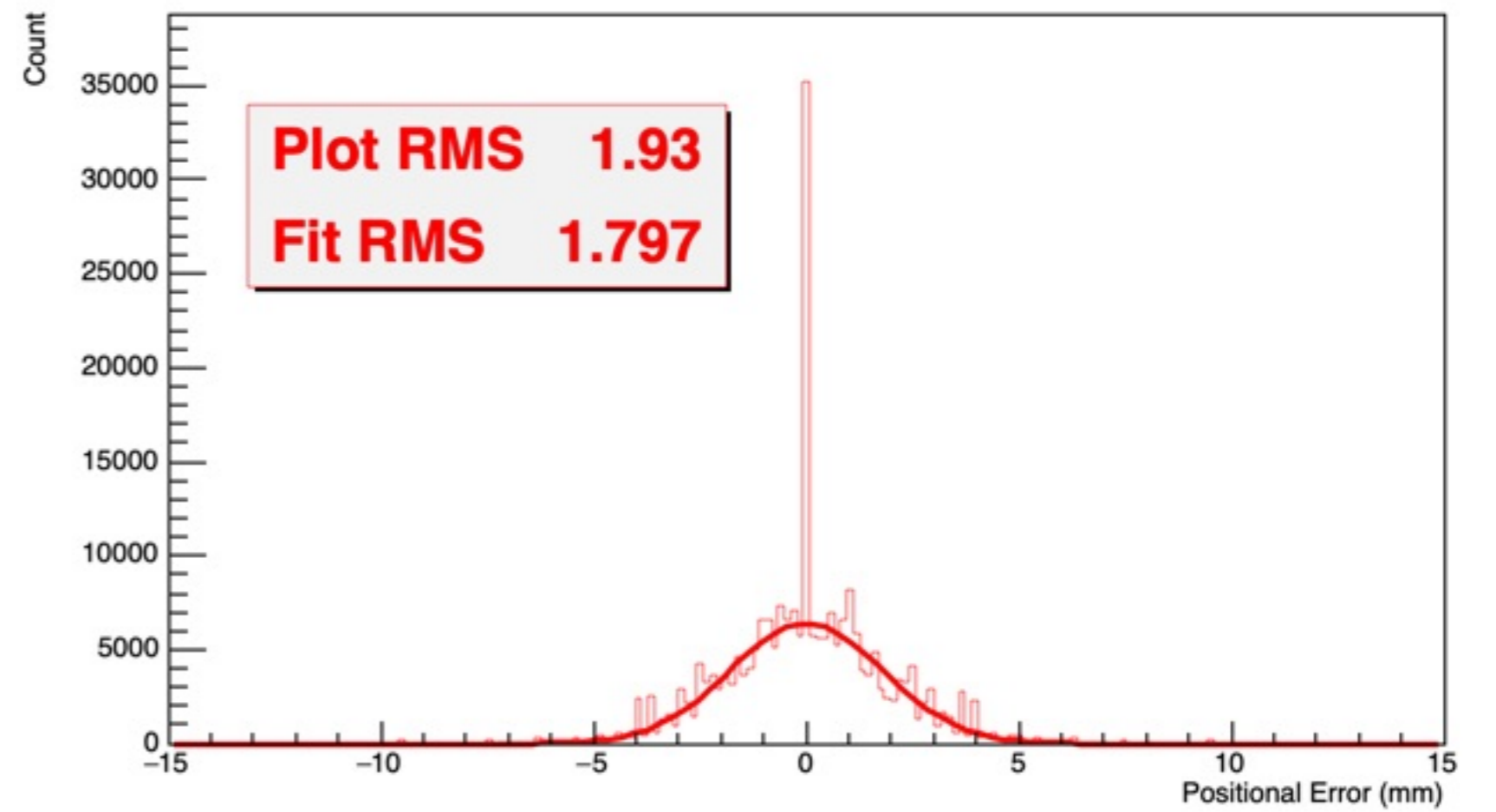
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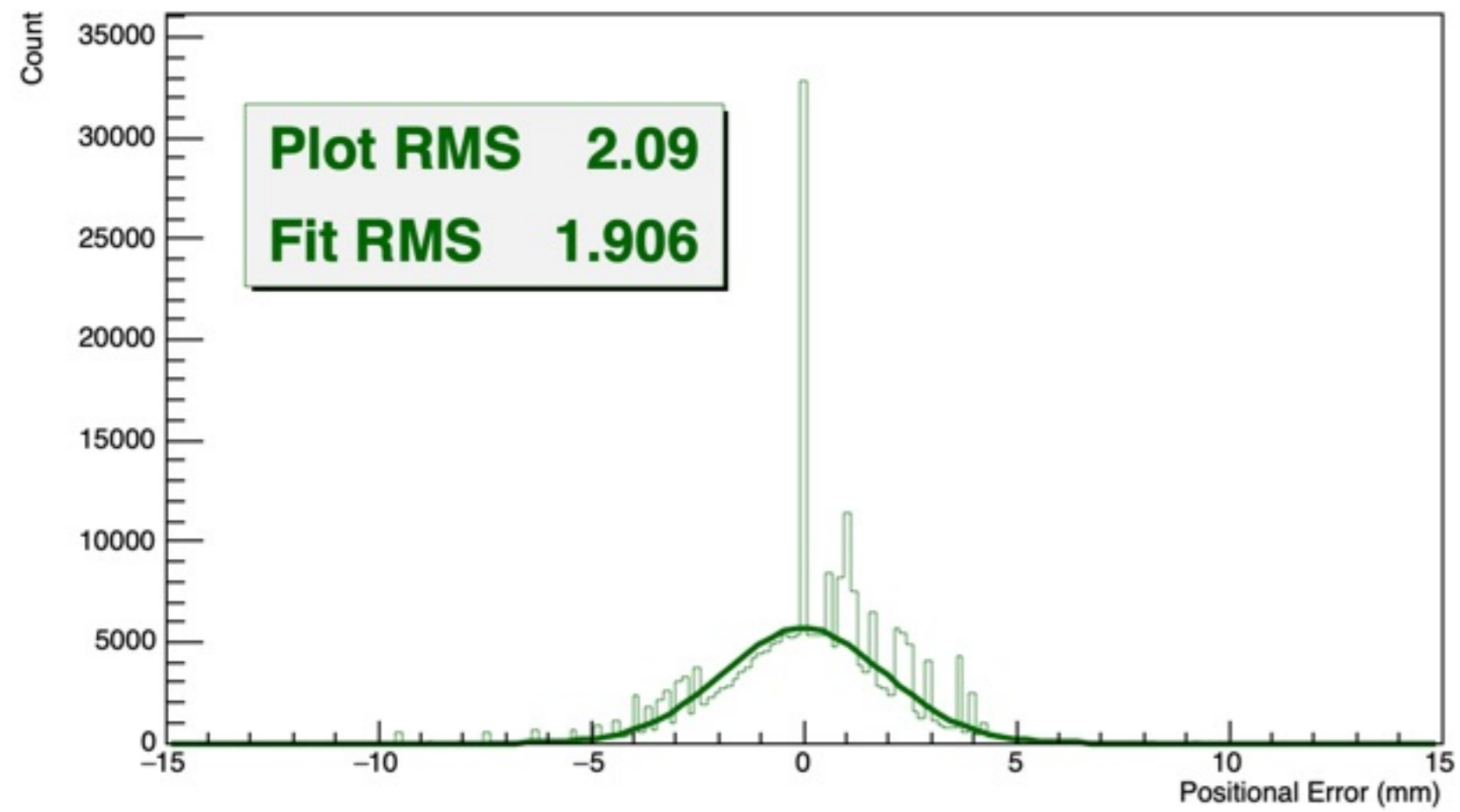
Positional Error - 20 PE/cm Yield, Z-Plane X



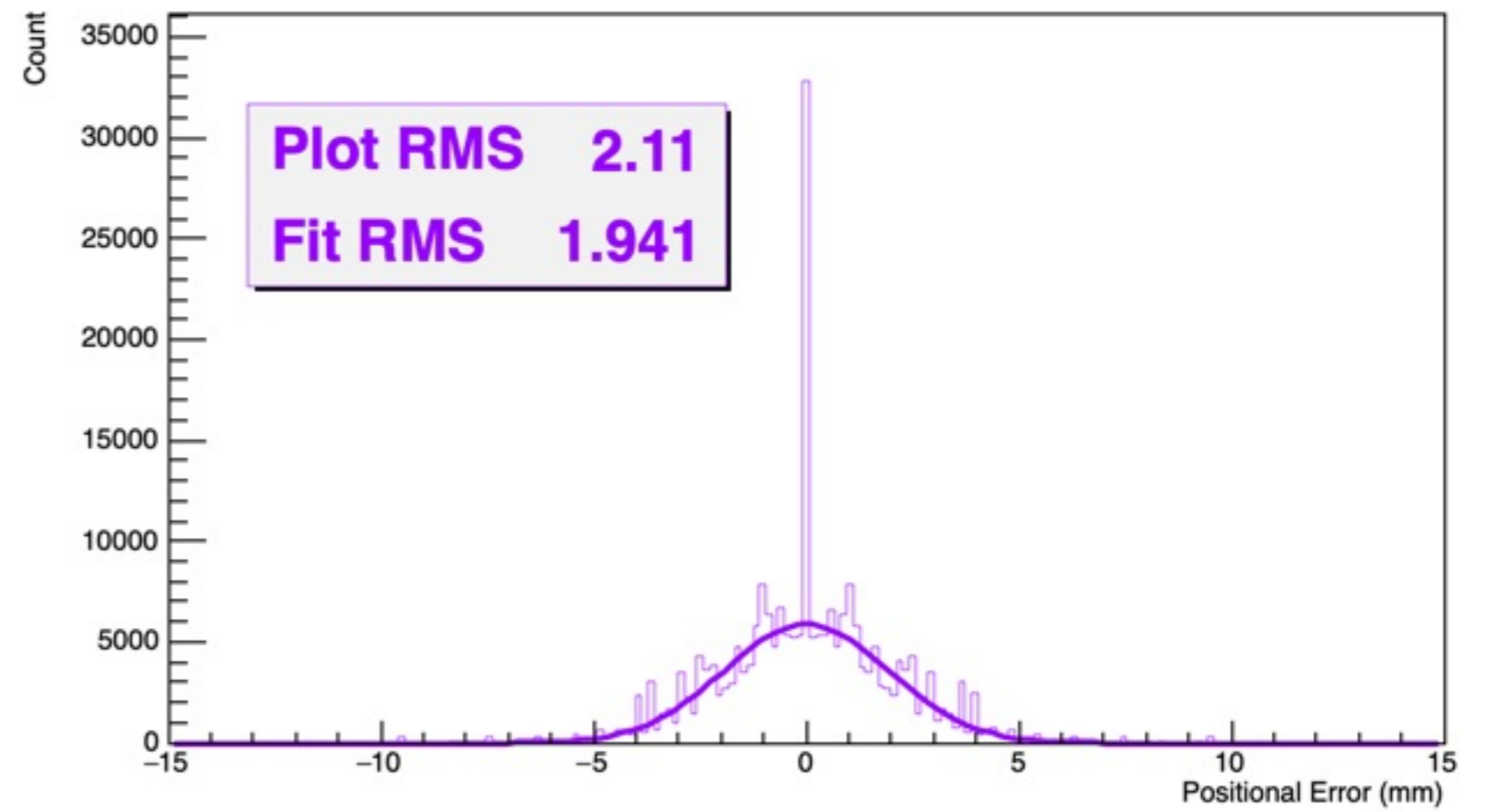
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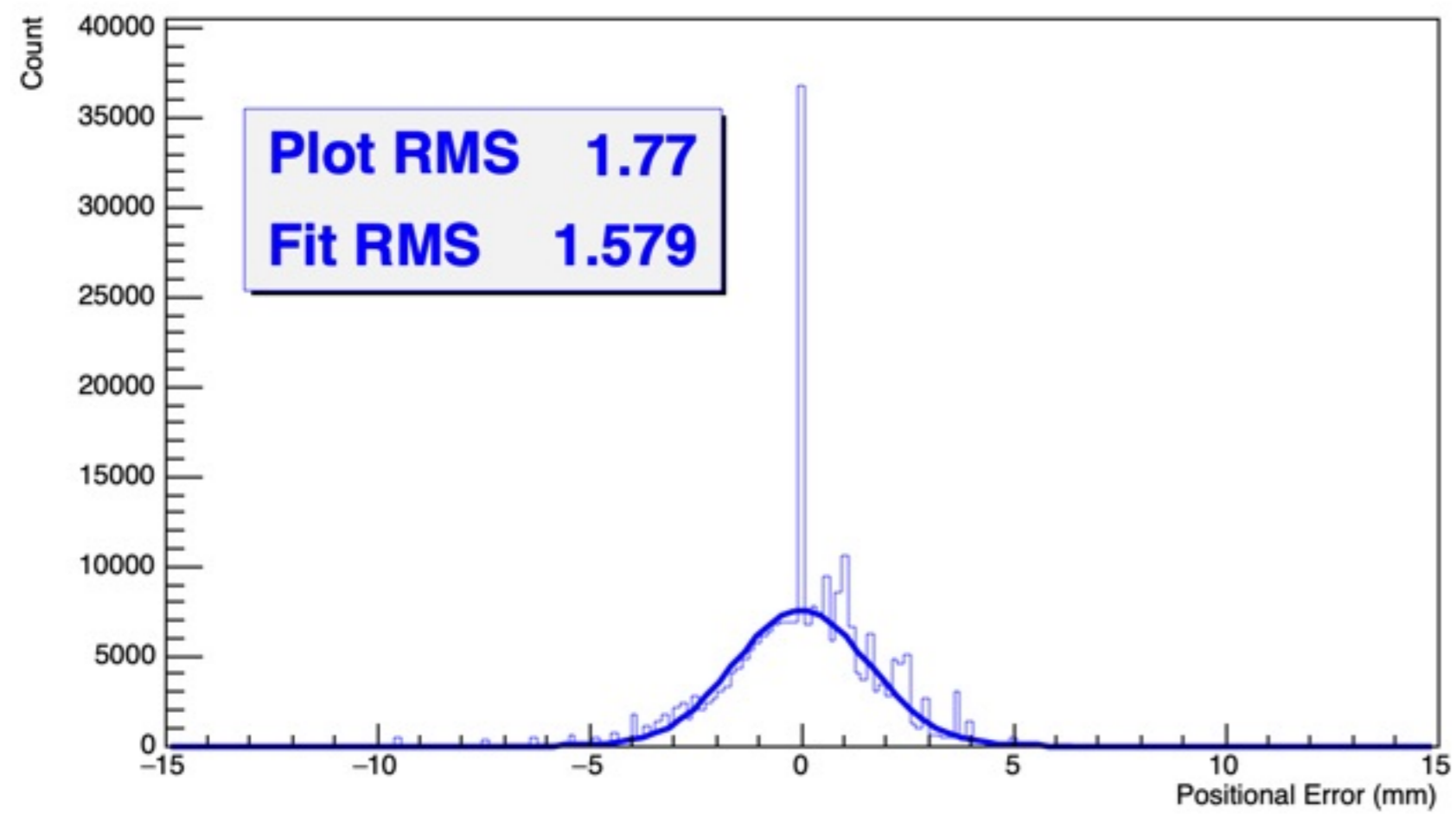
Y-Plane X



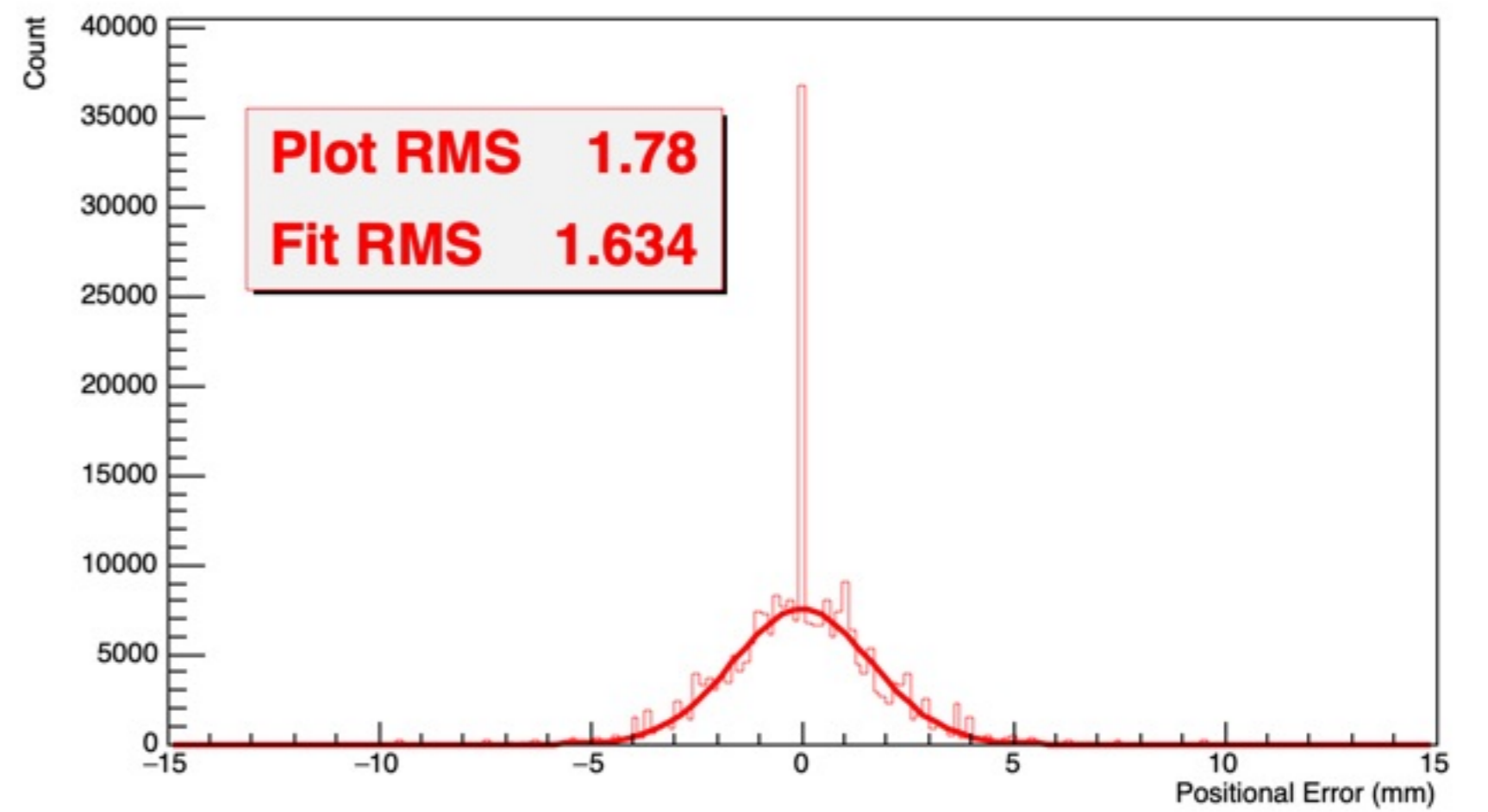
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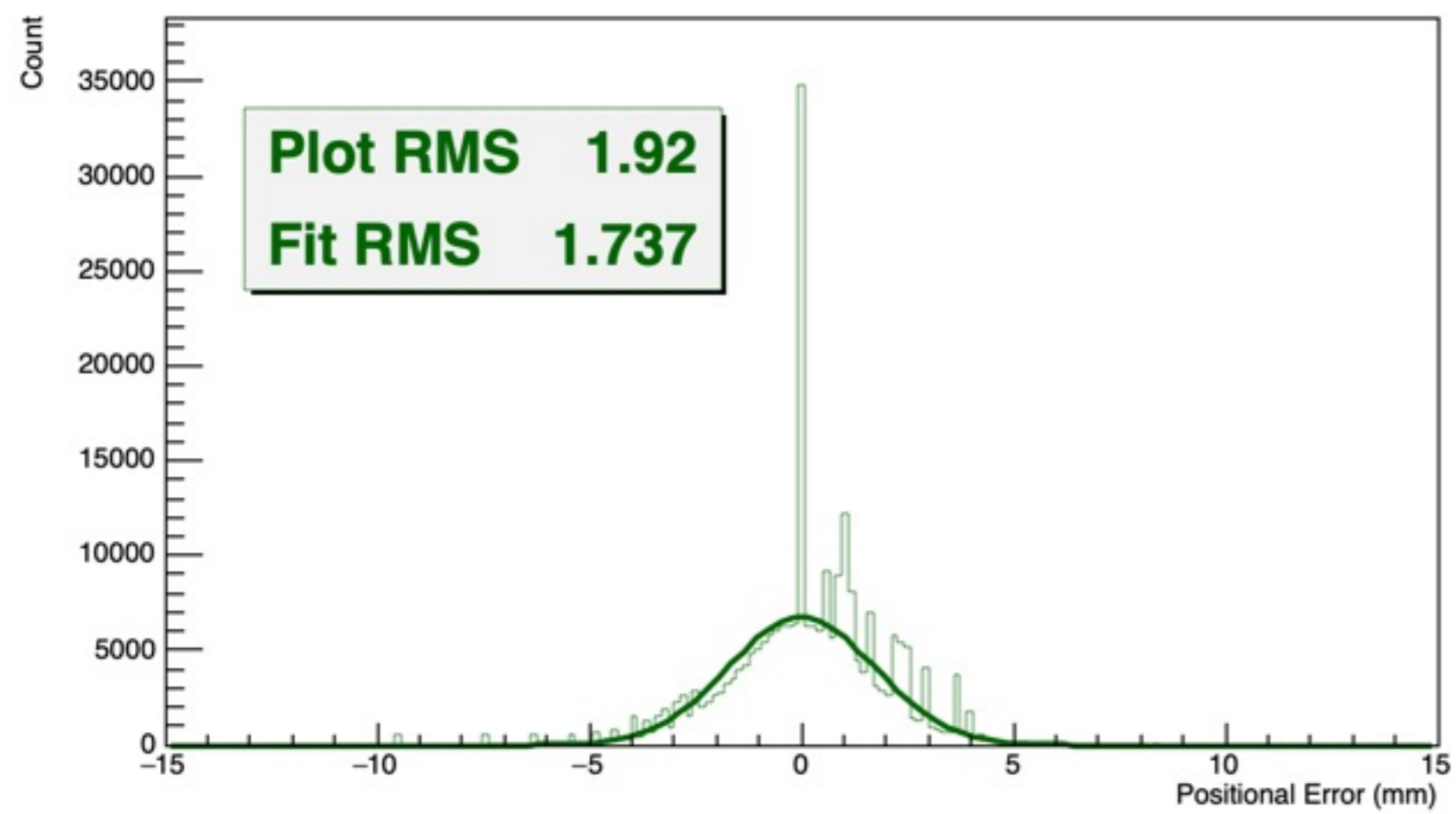
Positional Error - 25 PE/cm Yield, Z-Plane X



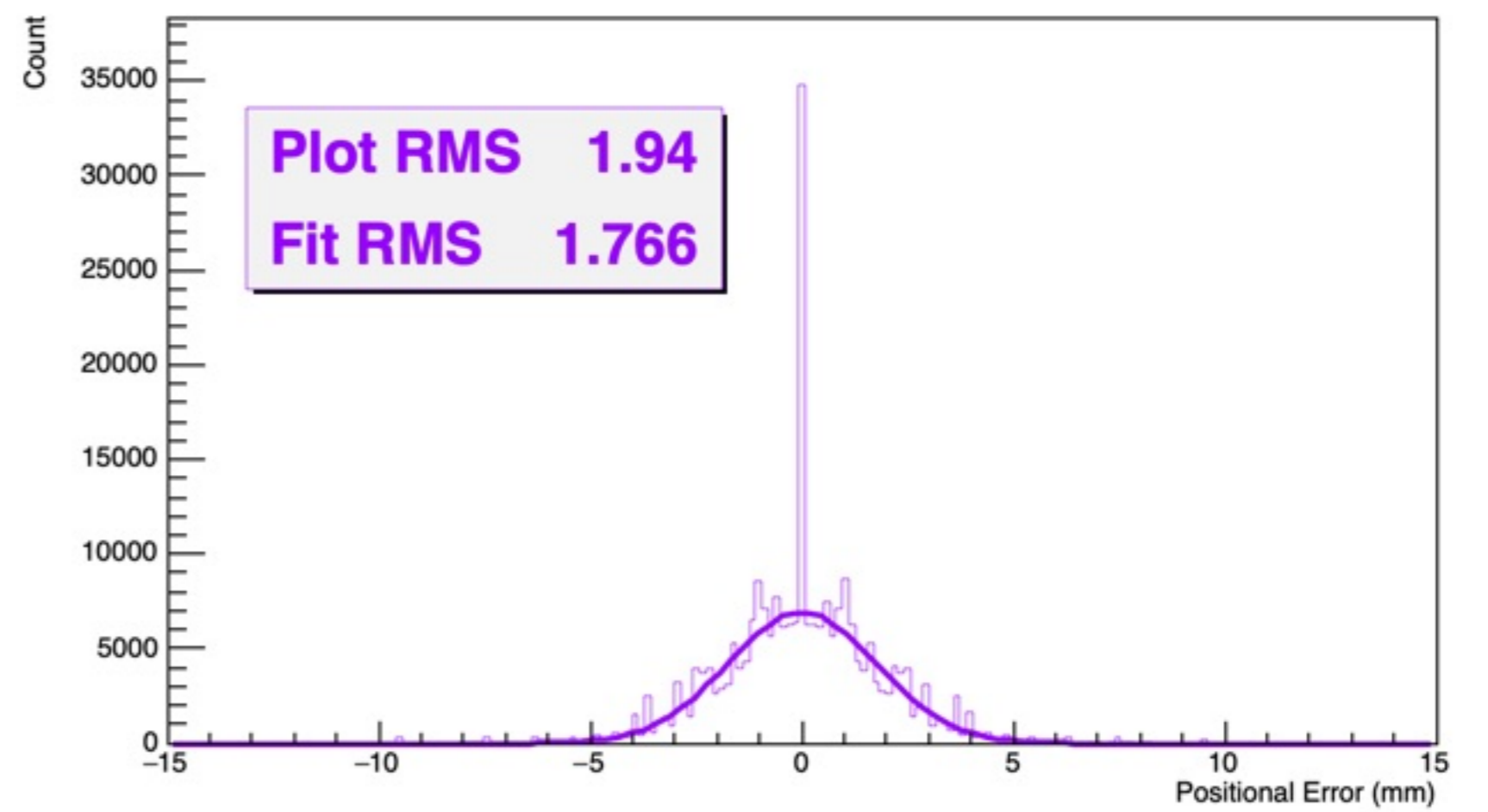
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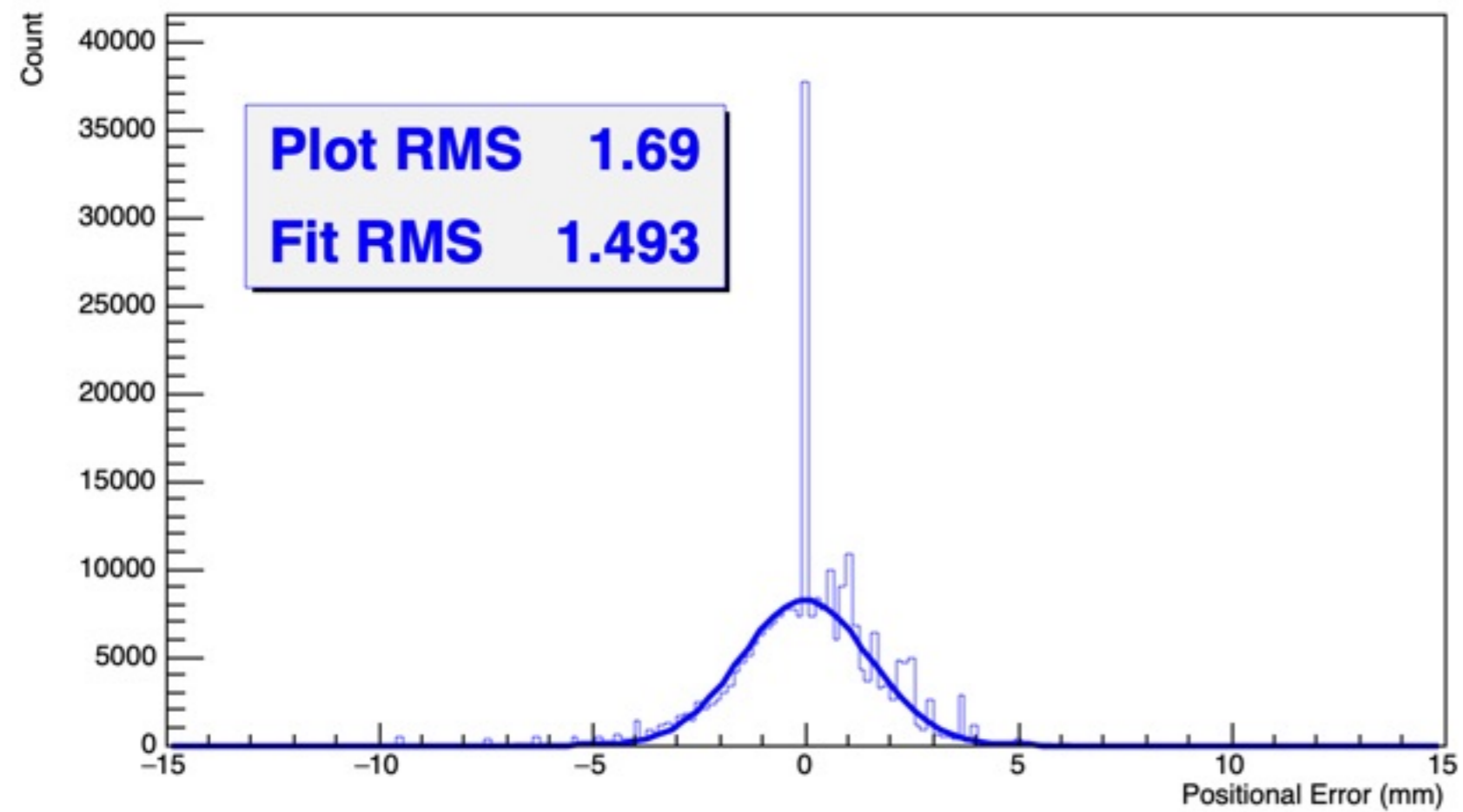
Y-Plane X



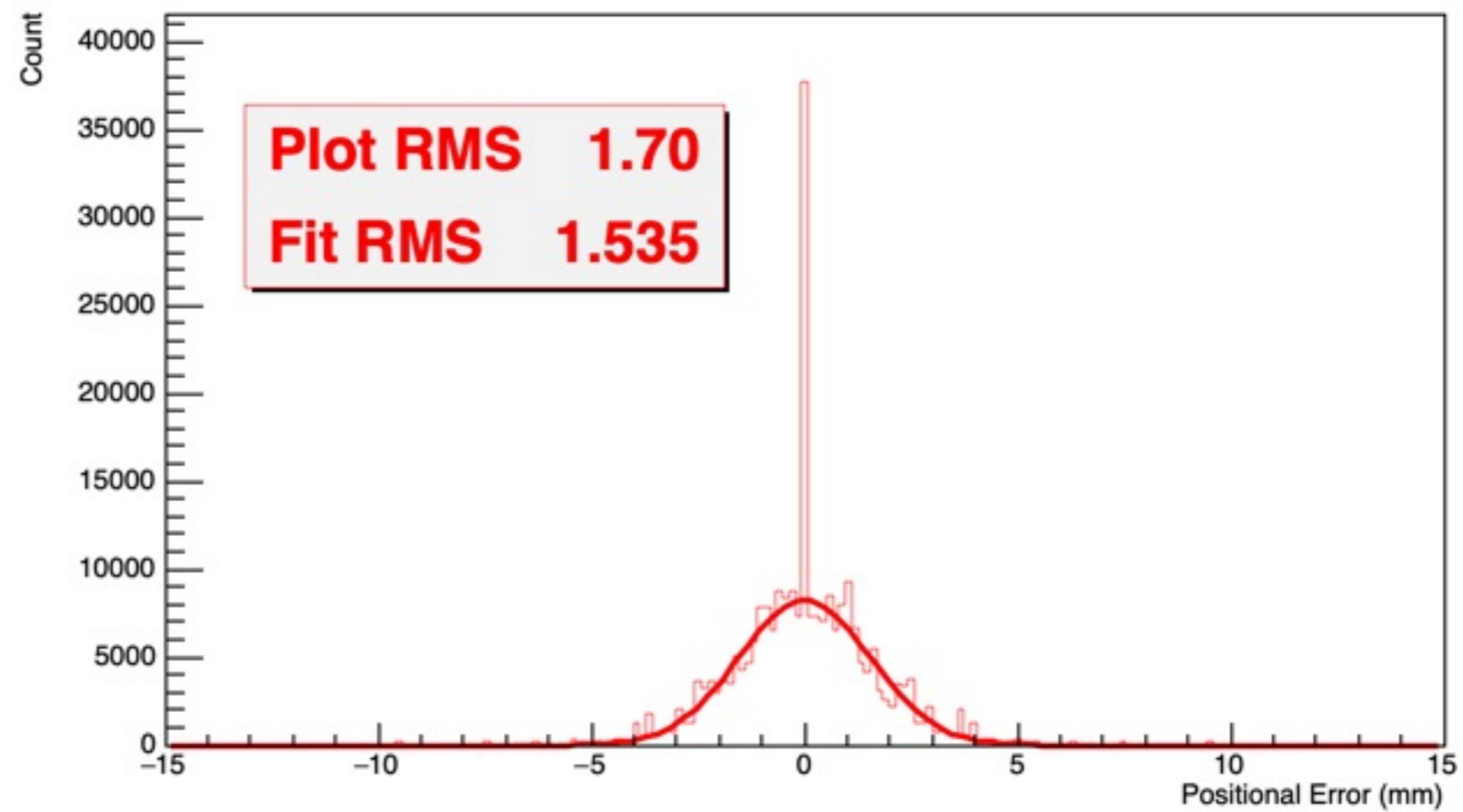
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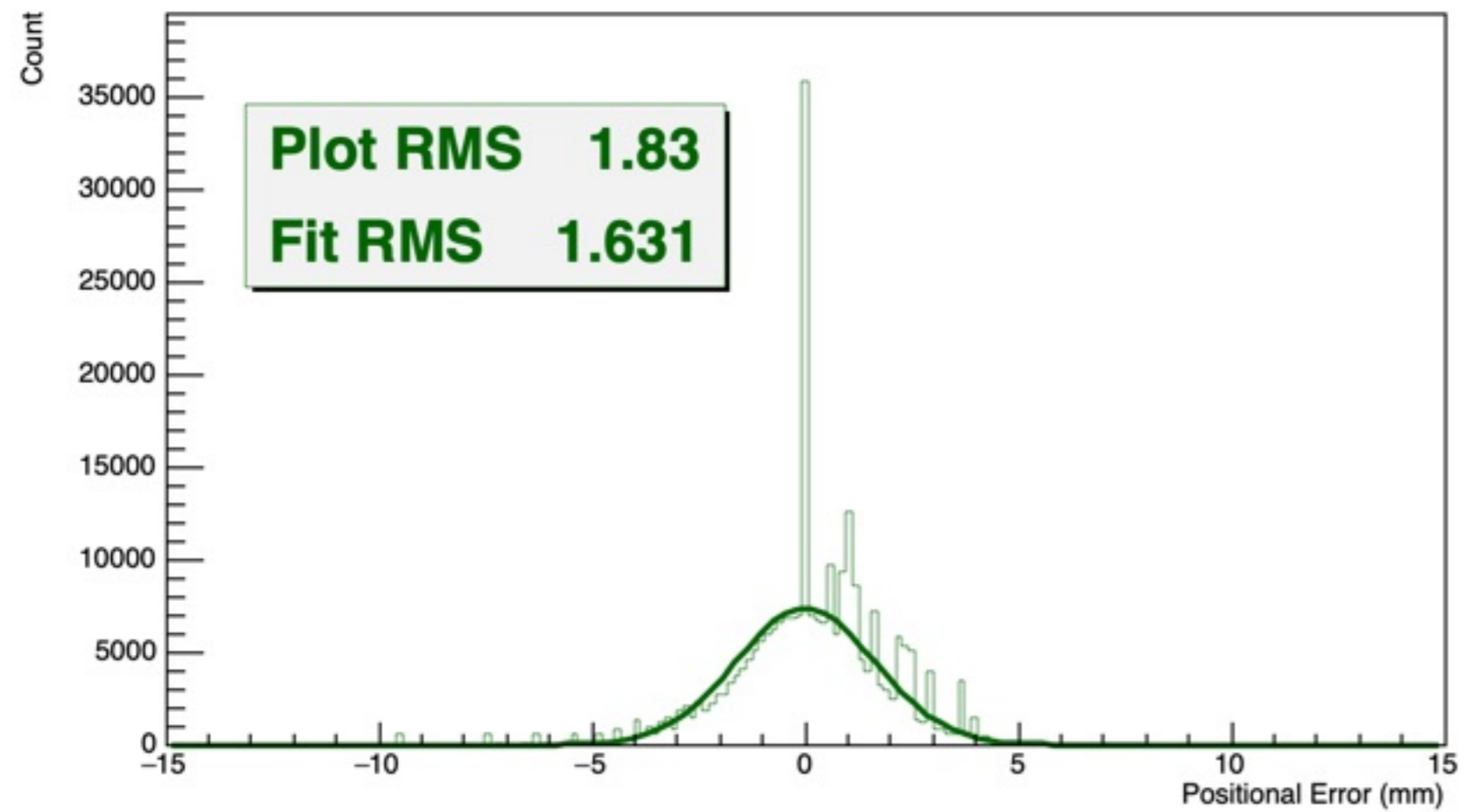
Positional Error - 30 PE/cm Yield, Z-Plane X



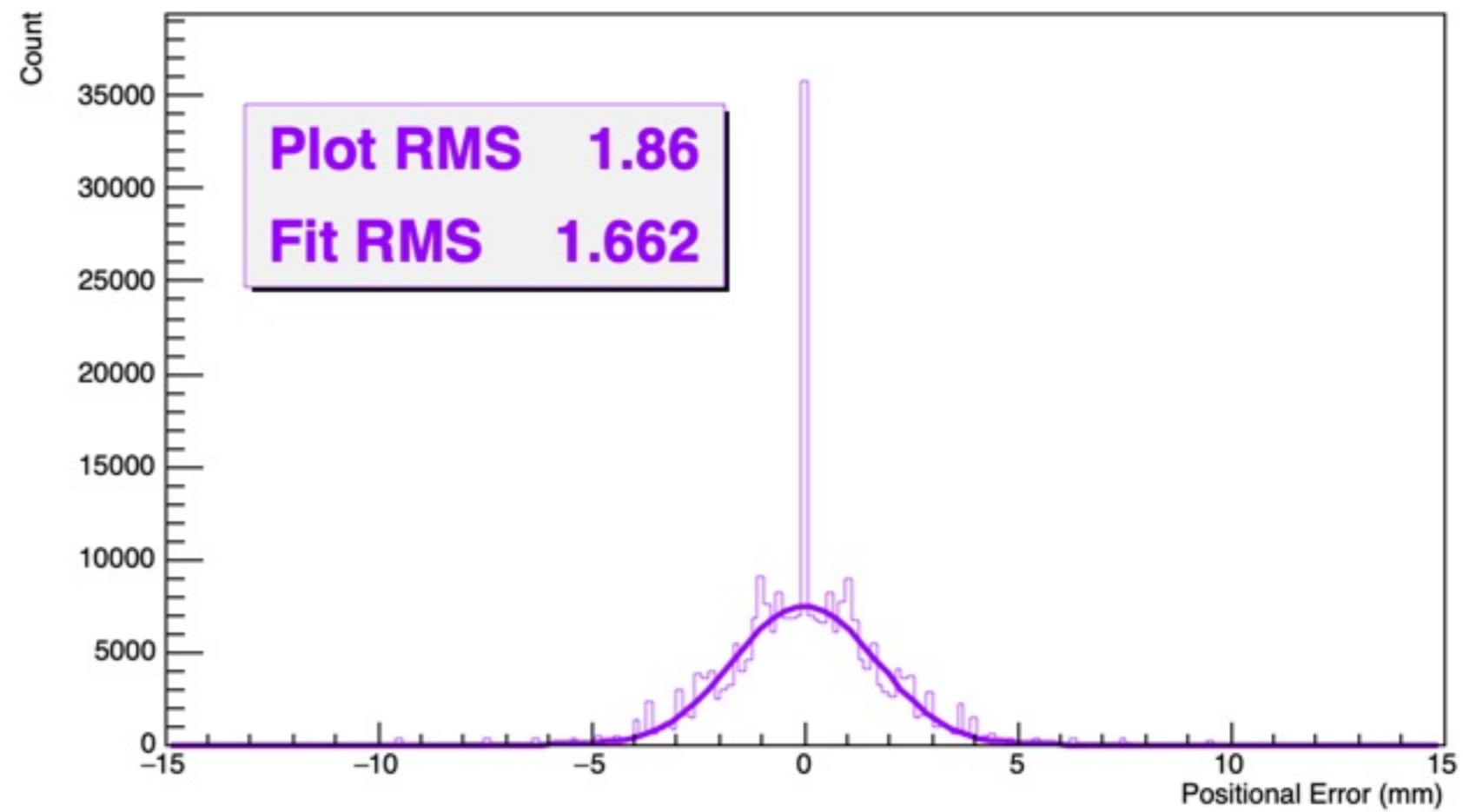
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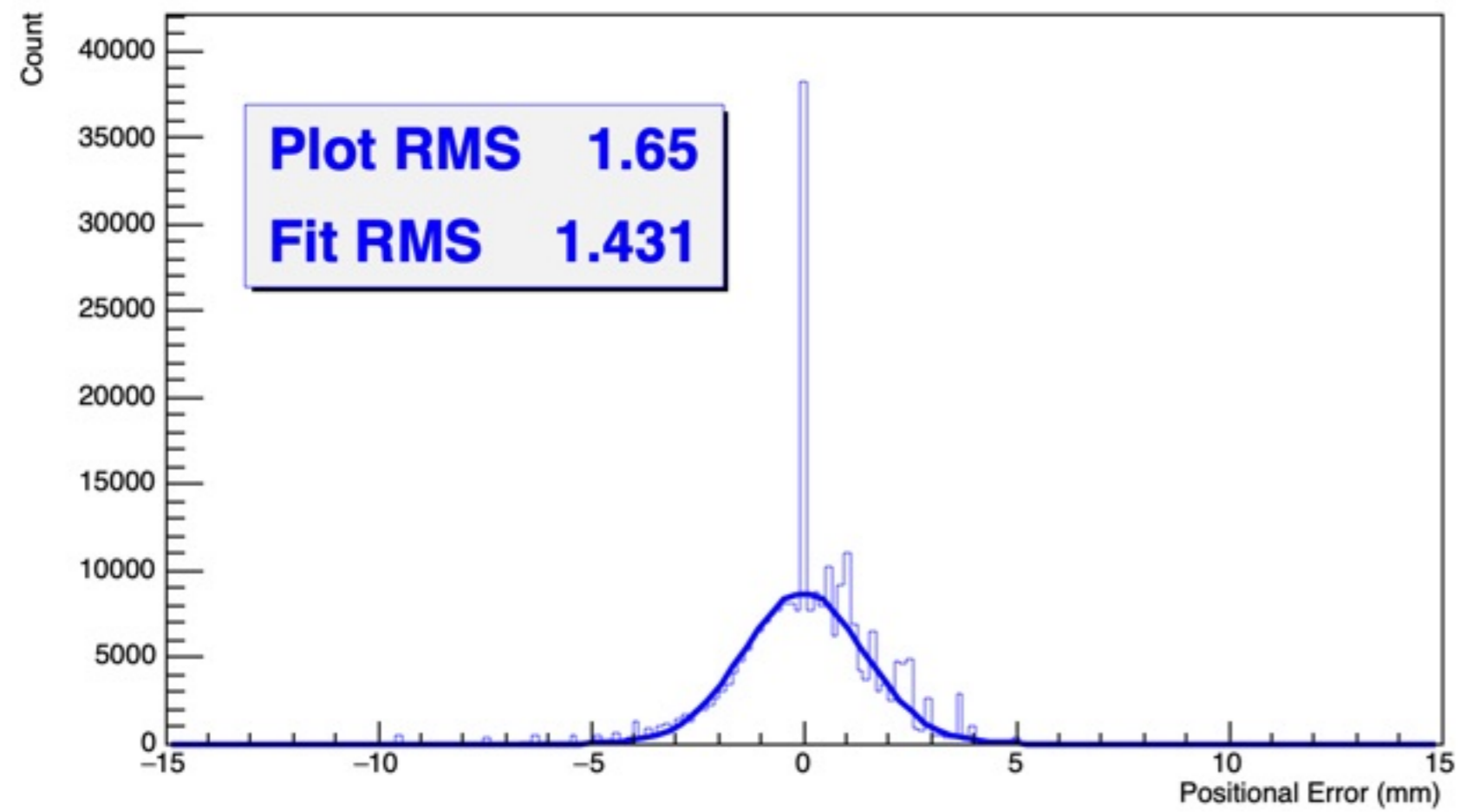
Y-Plane X



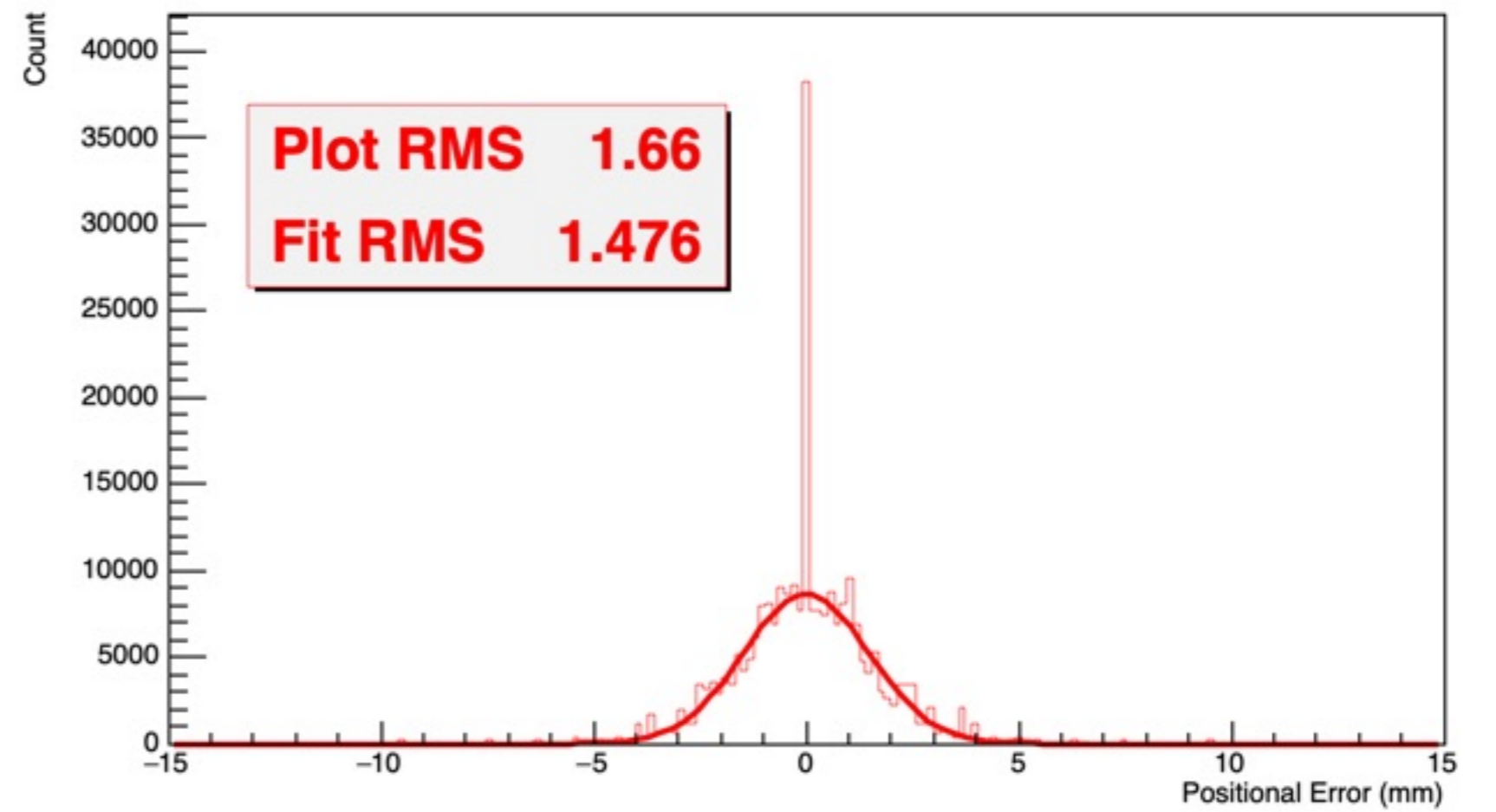
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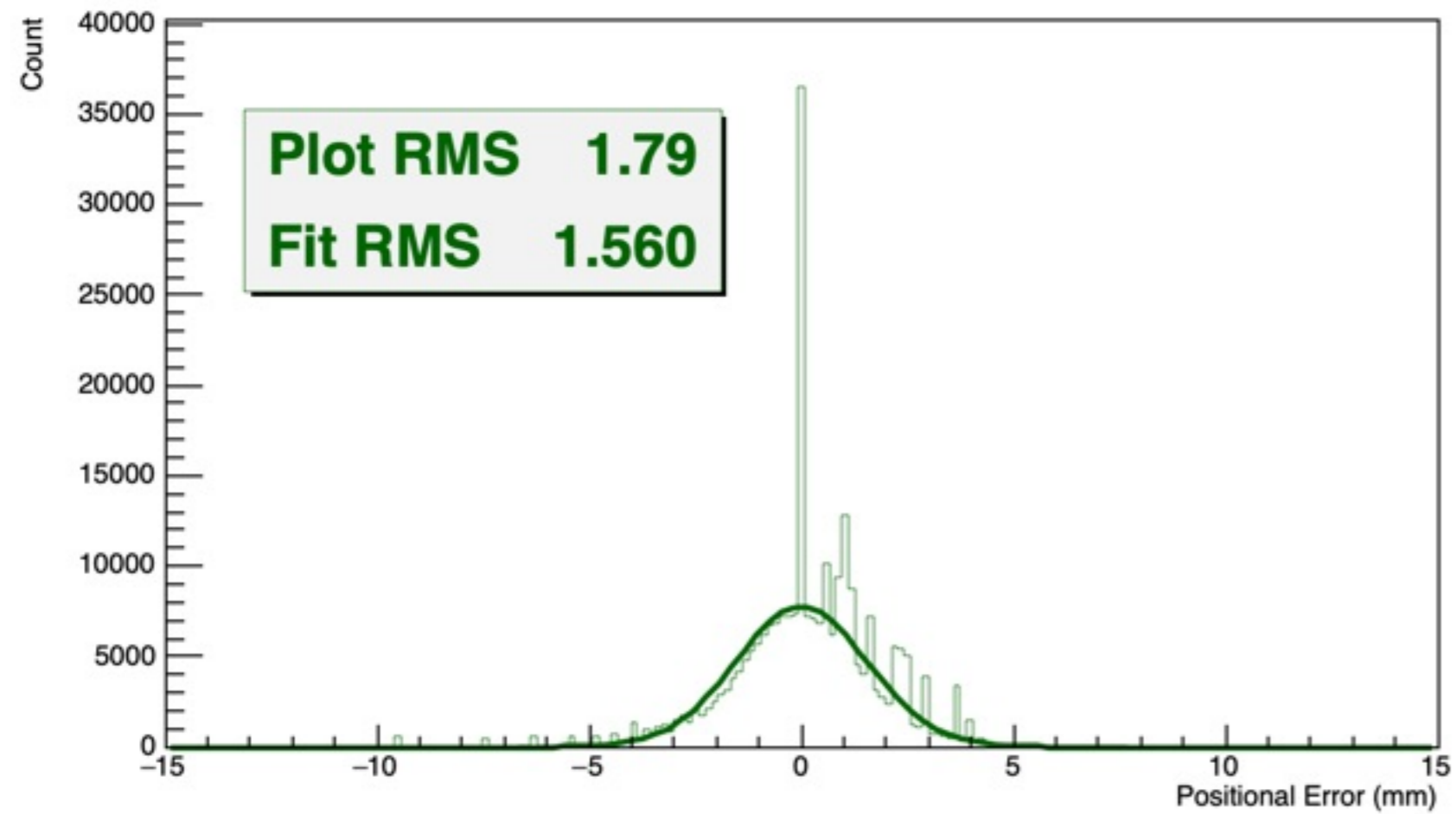
Positional Error - 35 PE/cm Yield, Z-Plane X



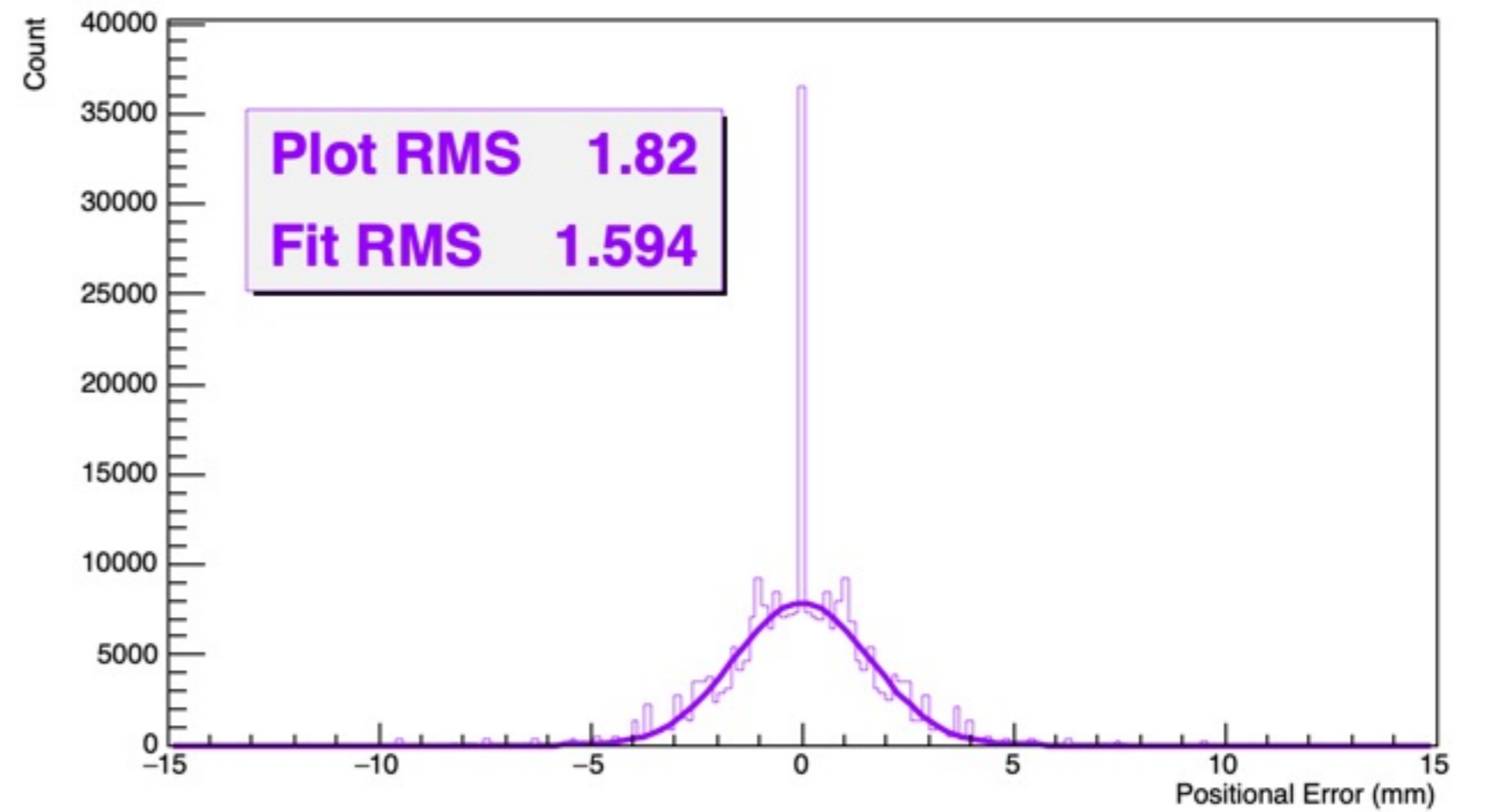
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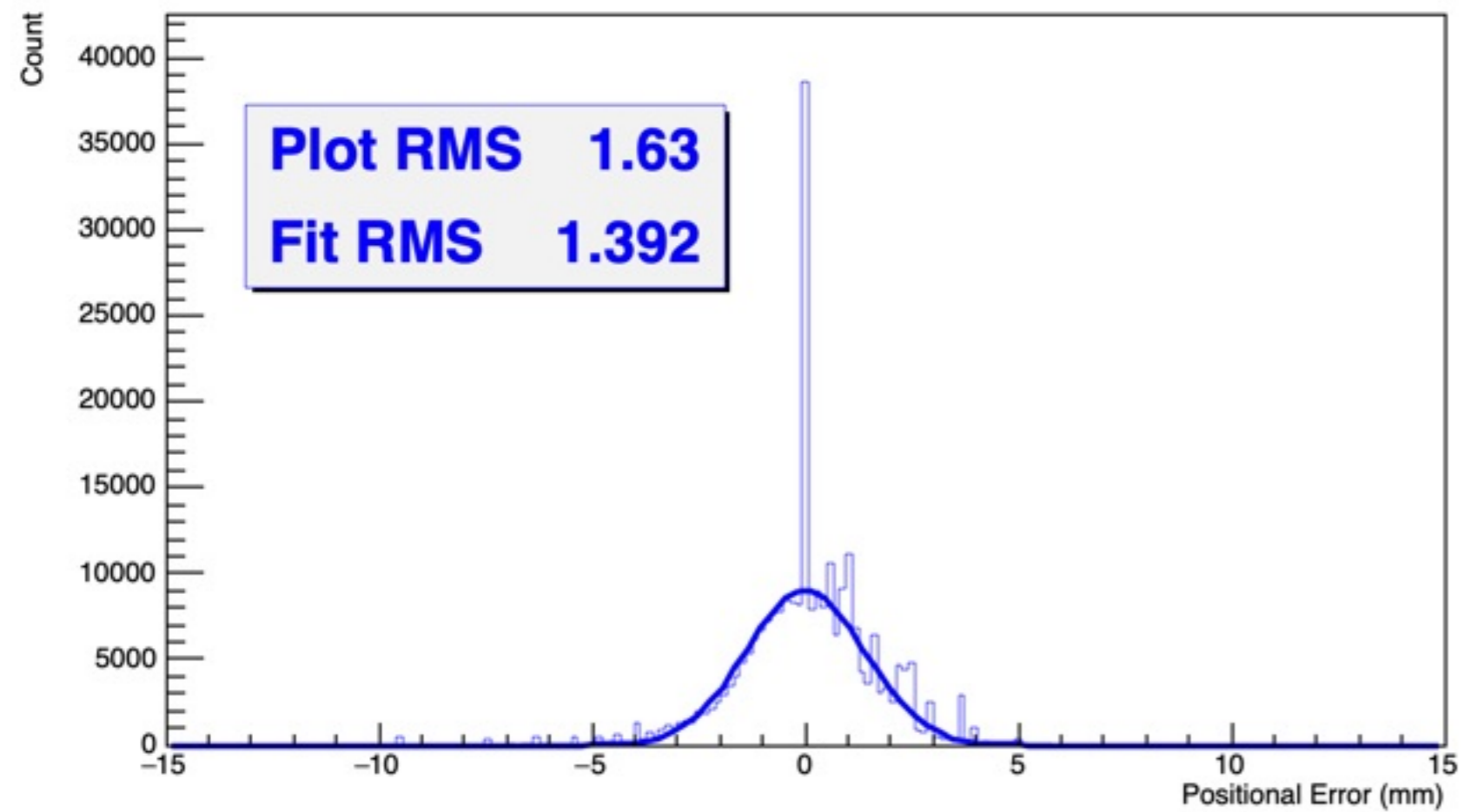
Y-Plane X



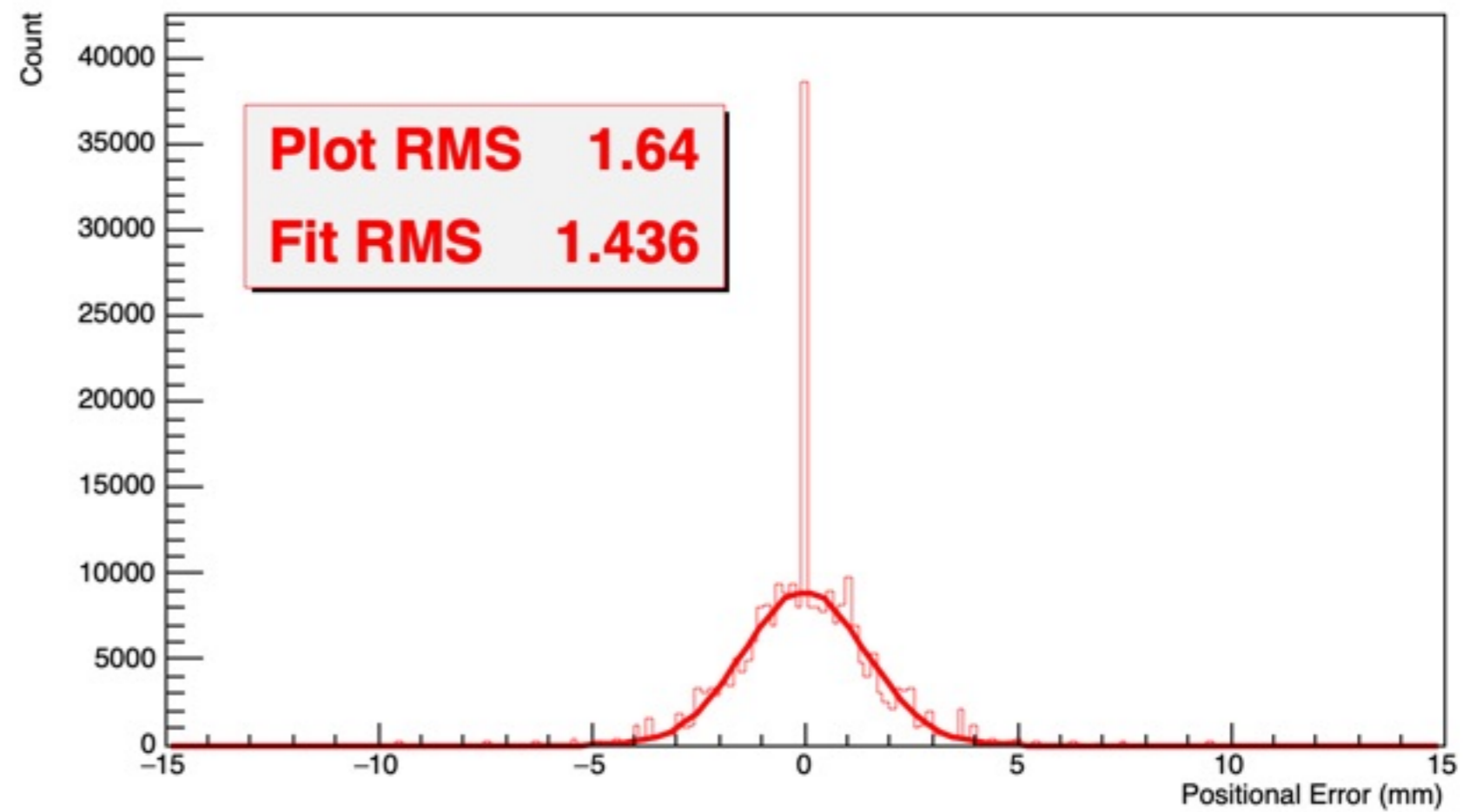
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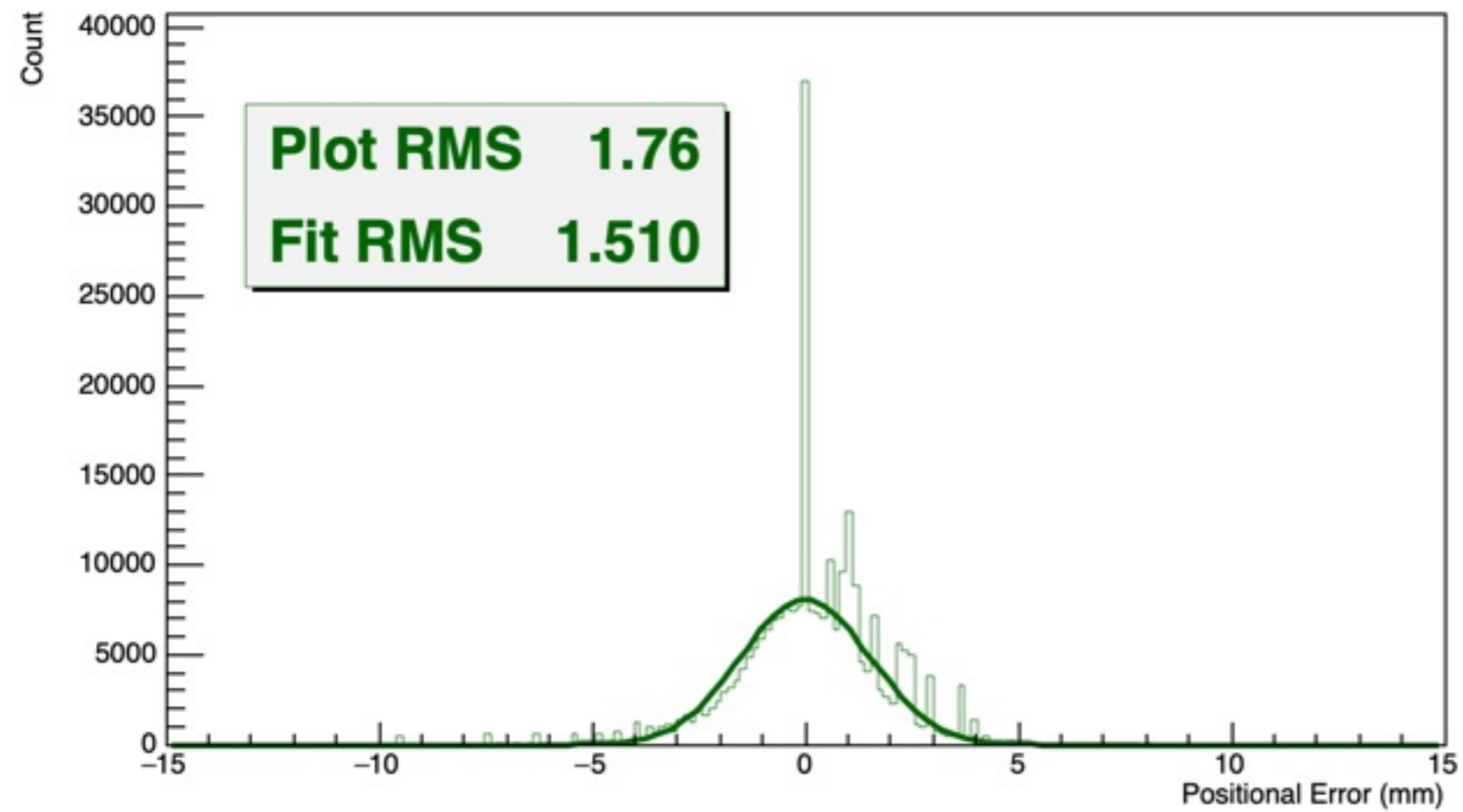
Positional Error - 40 PE/cm Yield, Z-Plane X



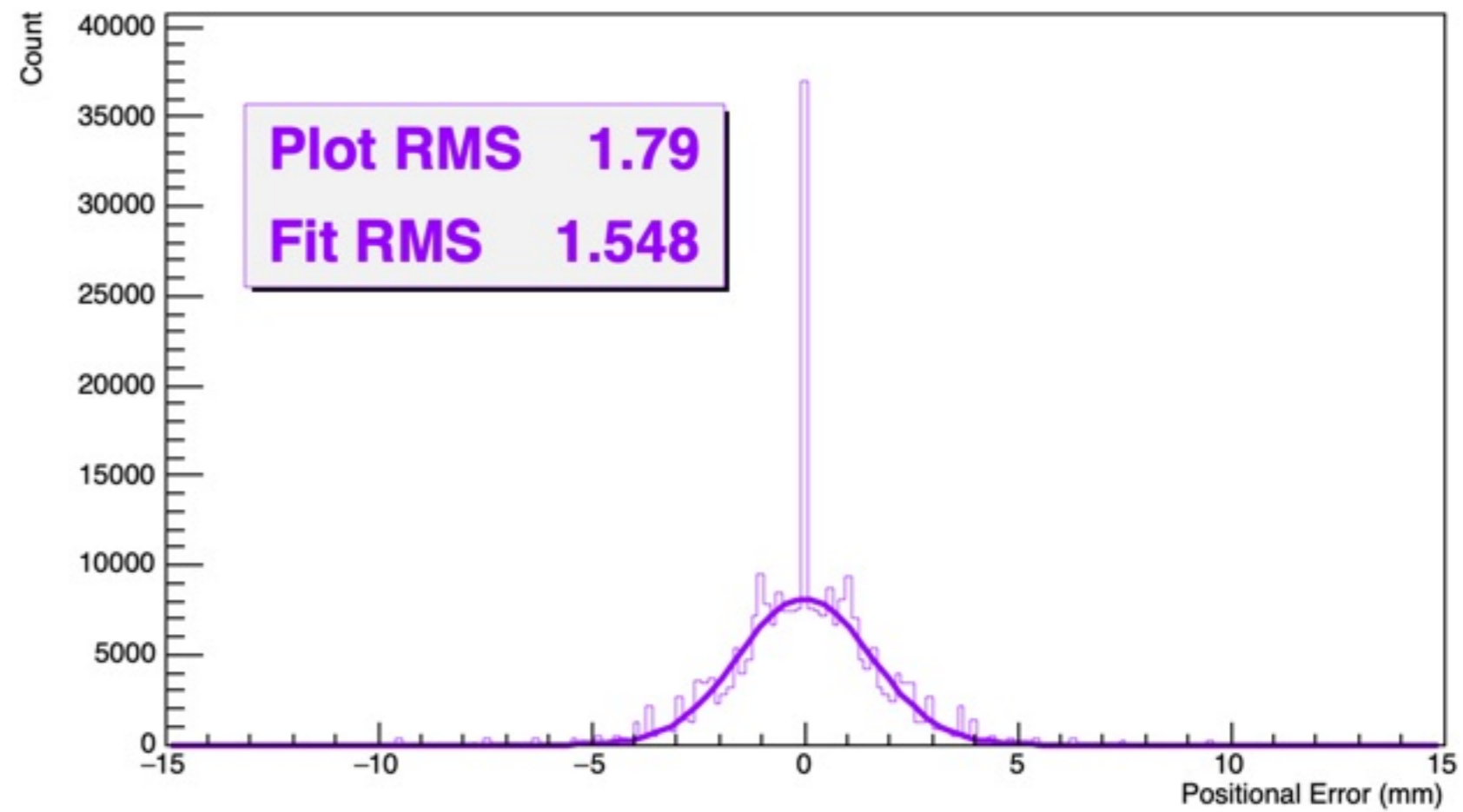
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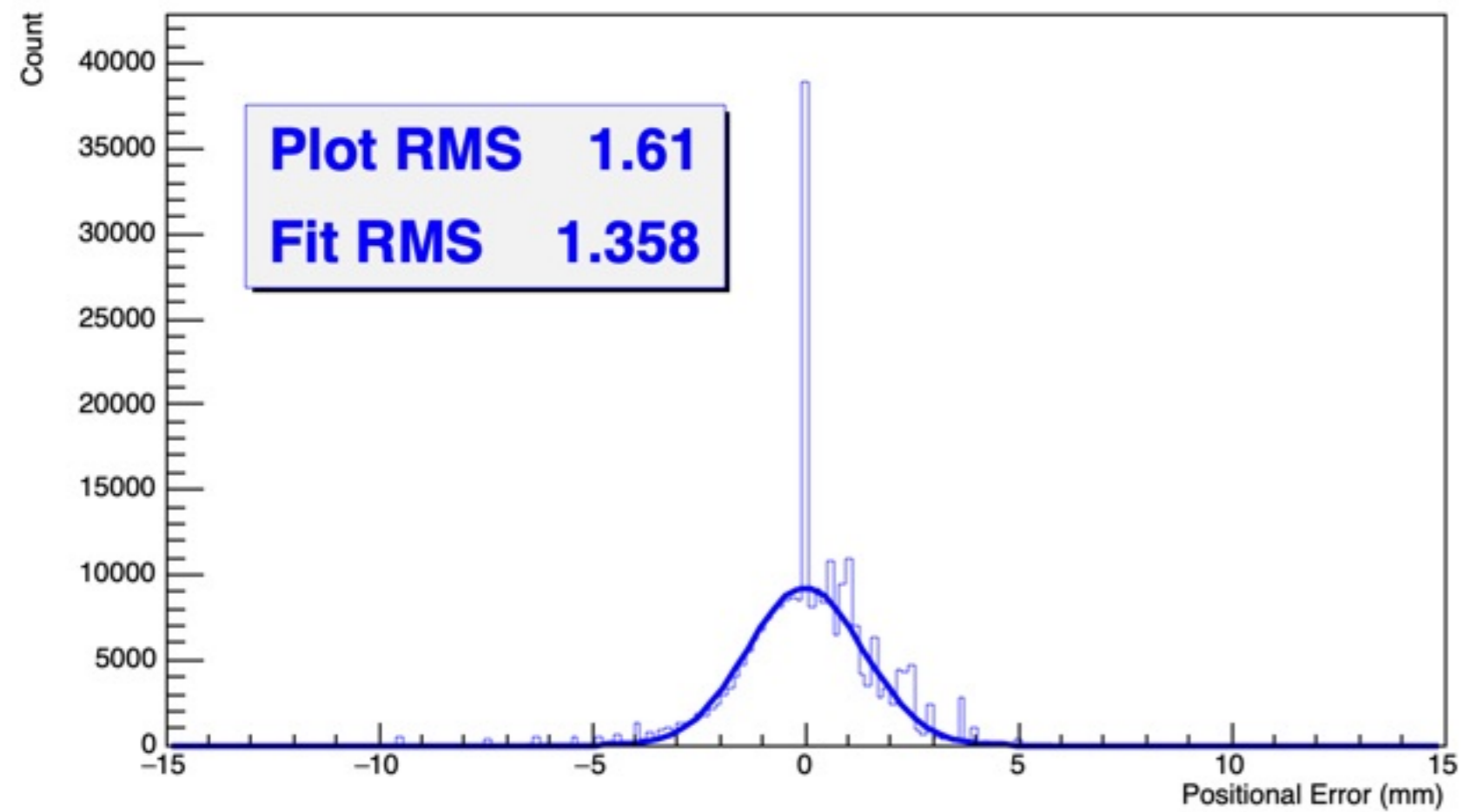
Y-Plane X



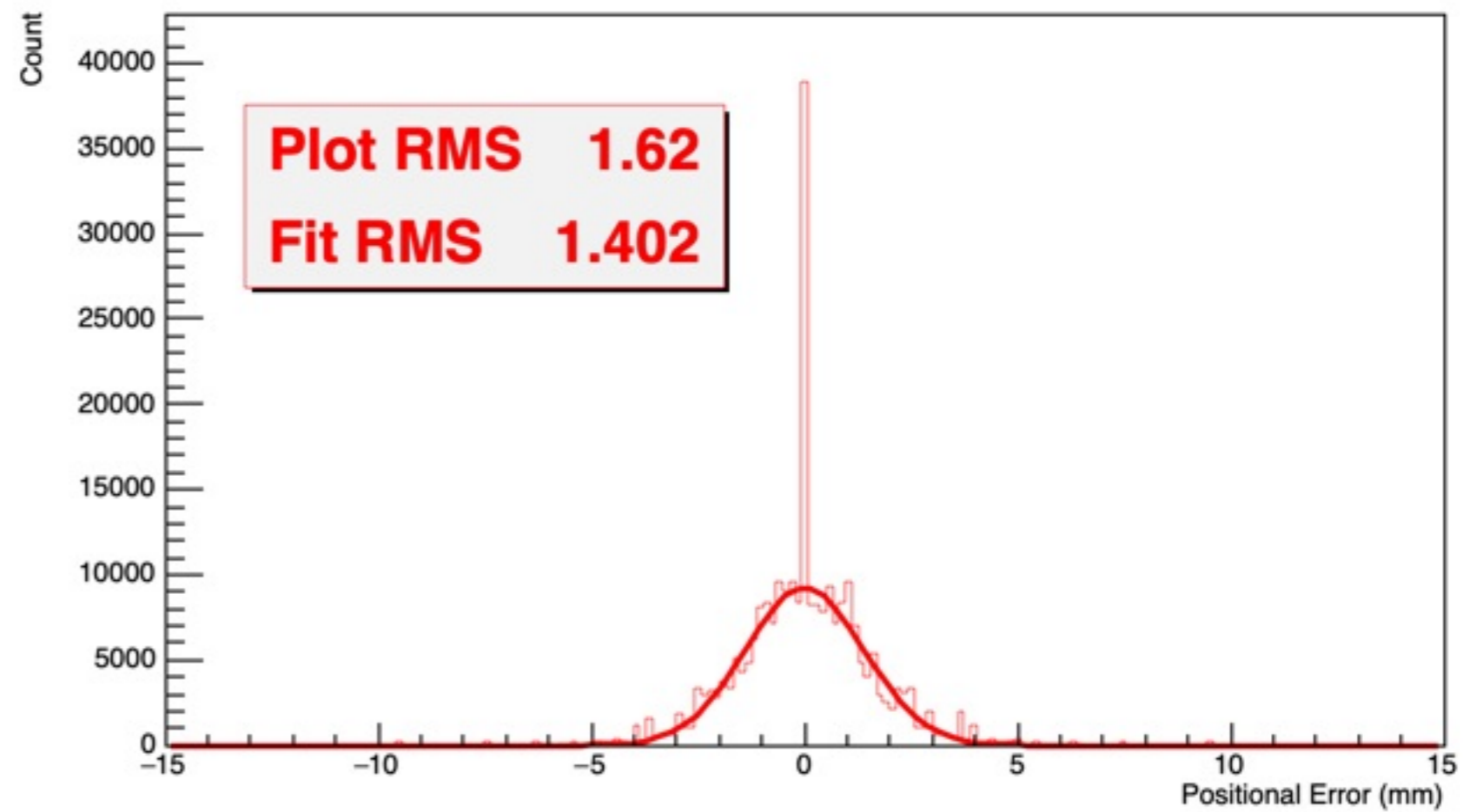
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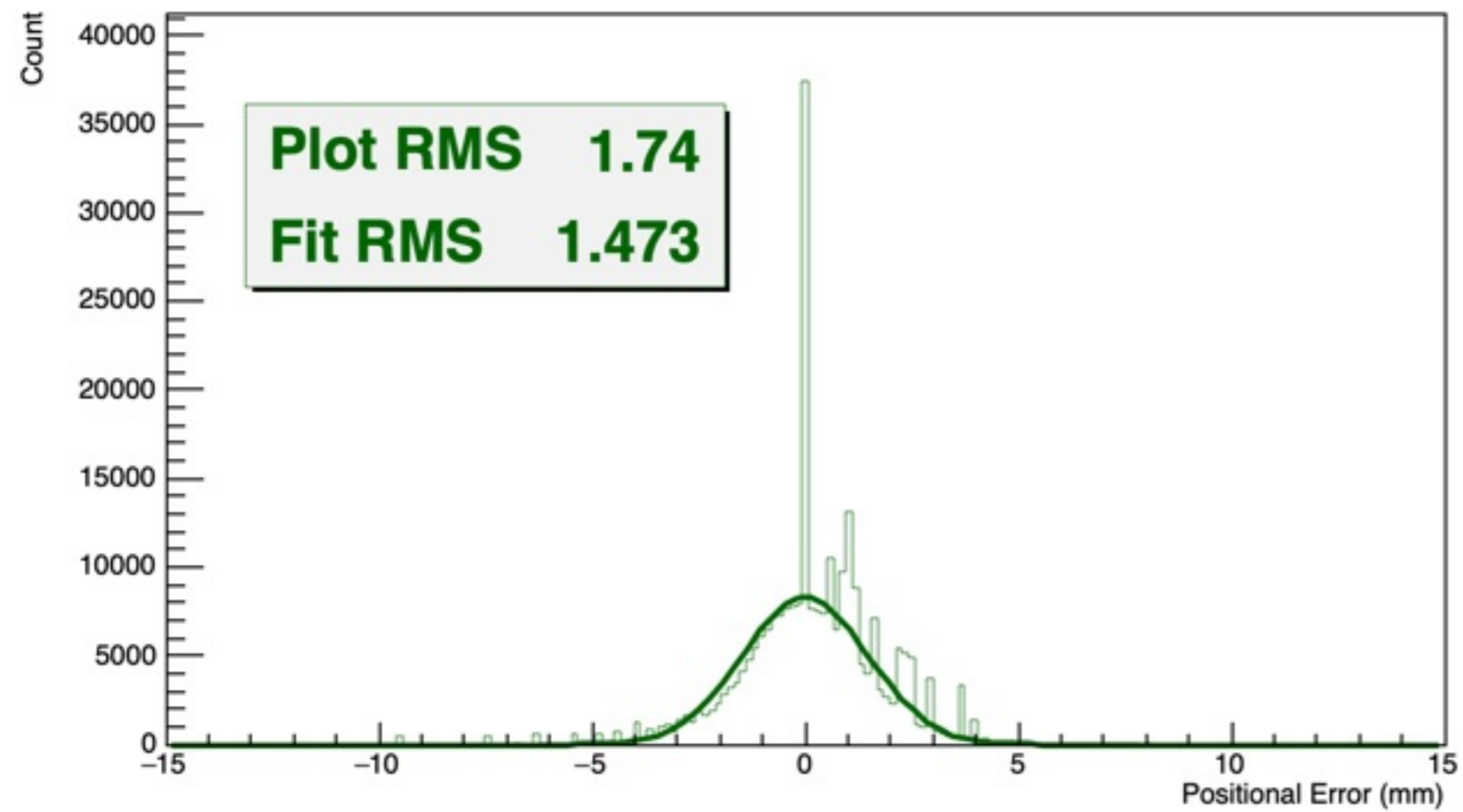
Positional Error - 45 PE/cm Yield, Z-Plane X



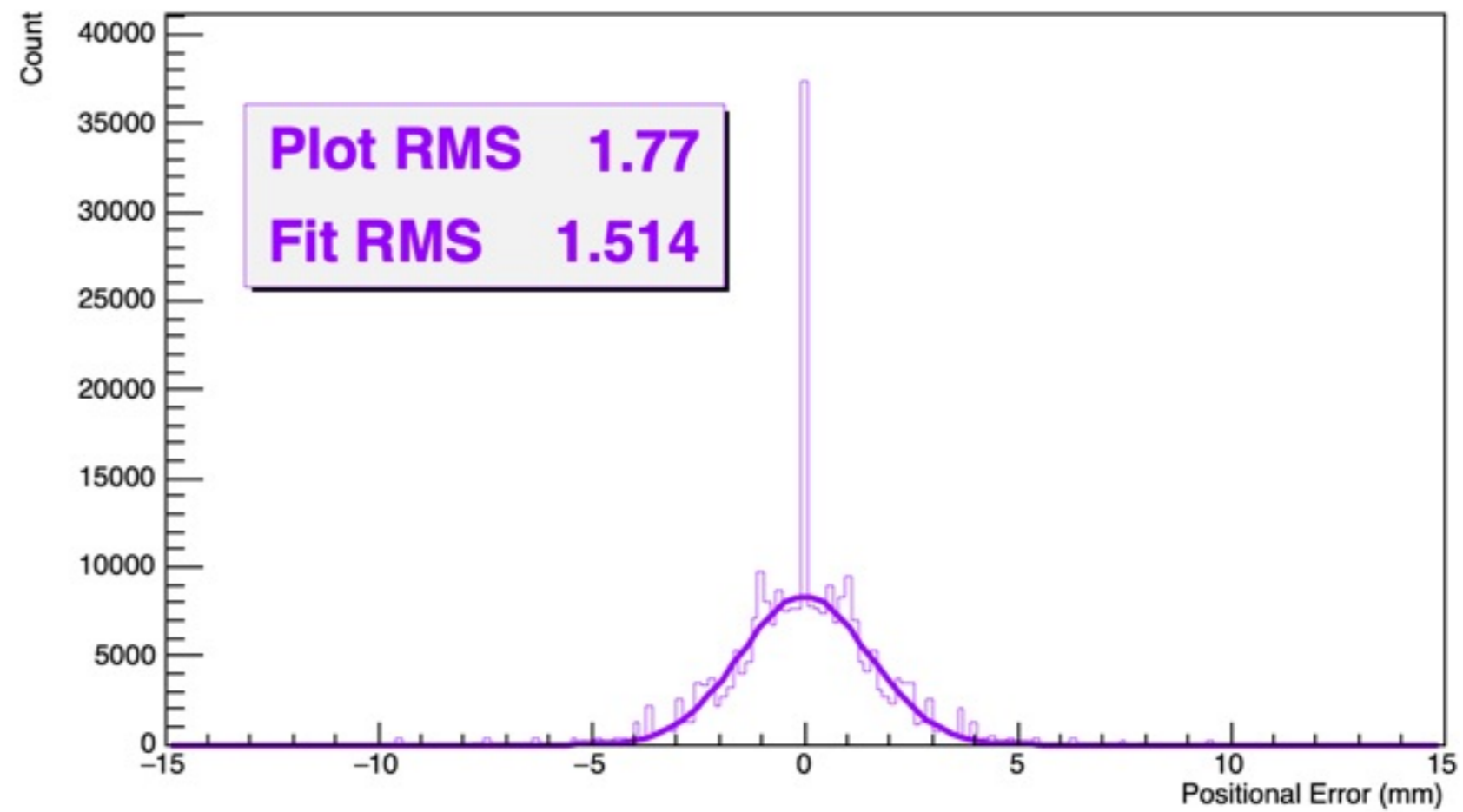
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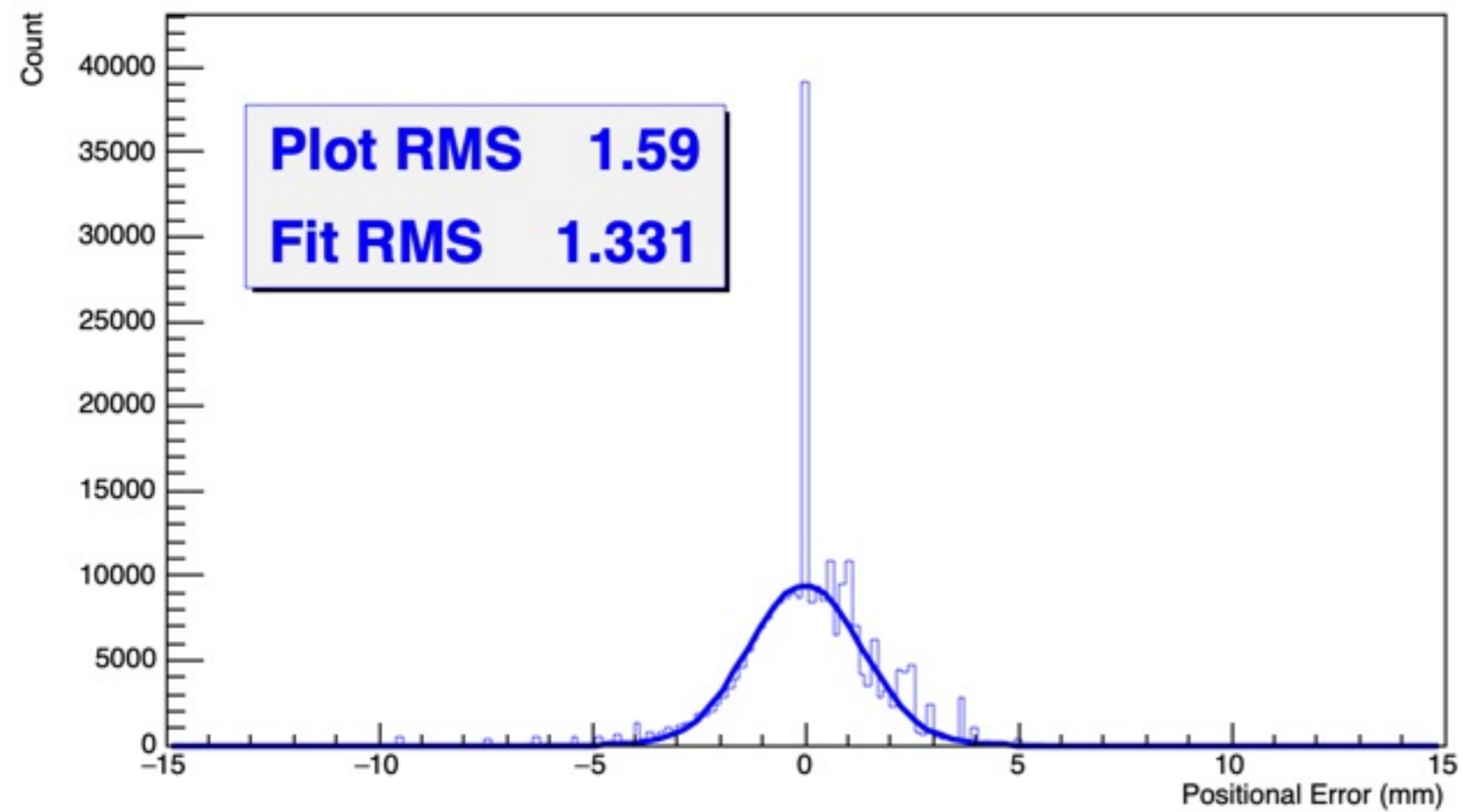
Y-Plane X



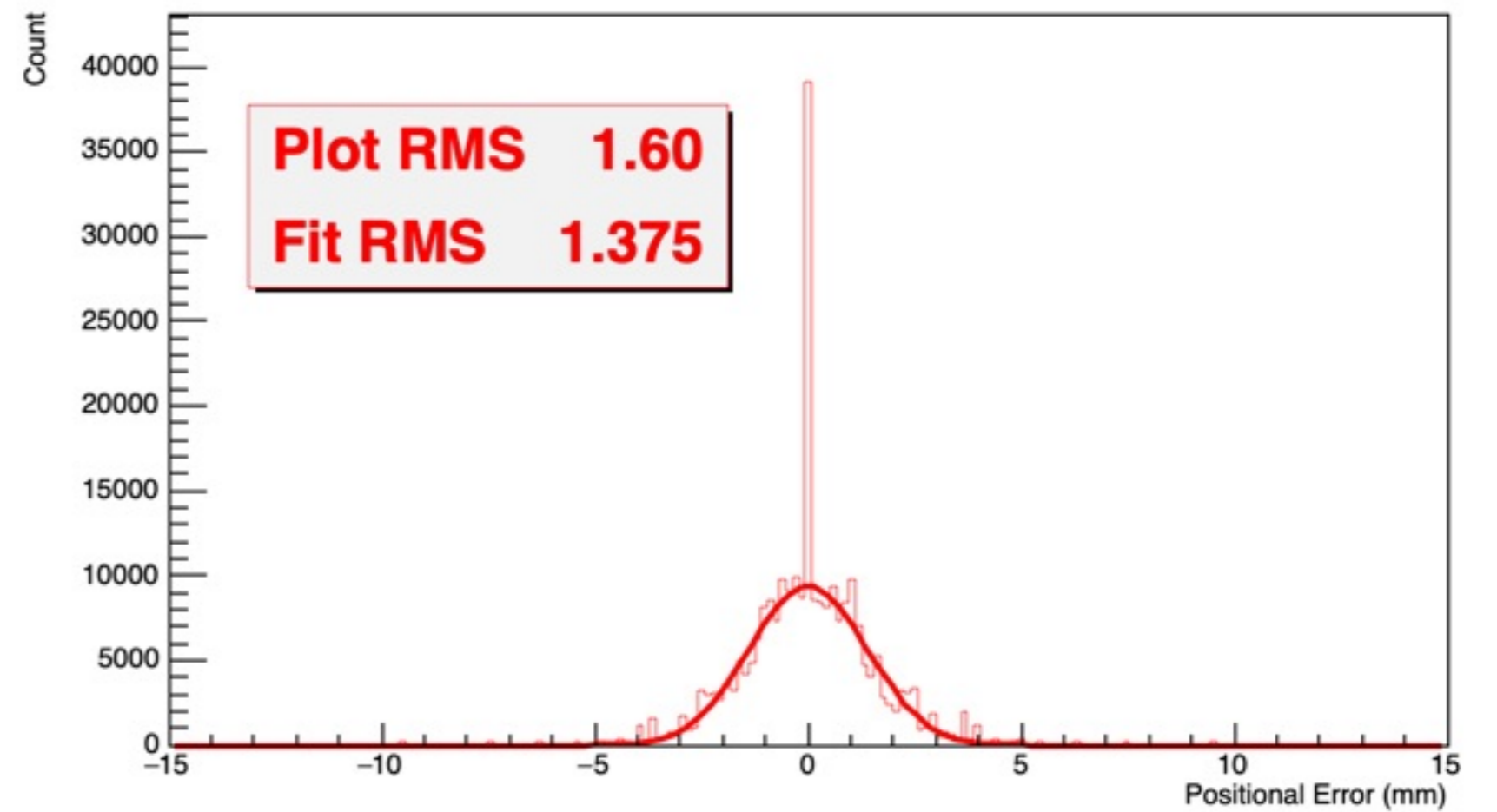
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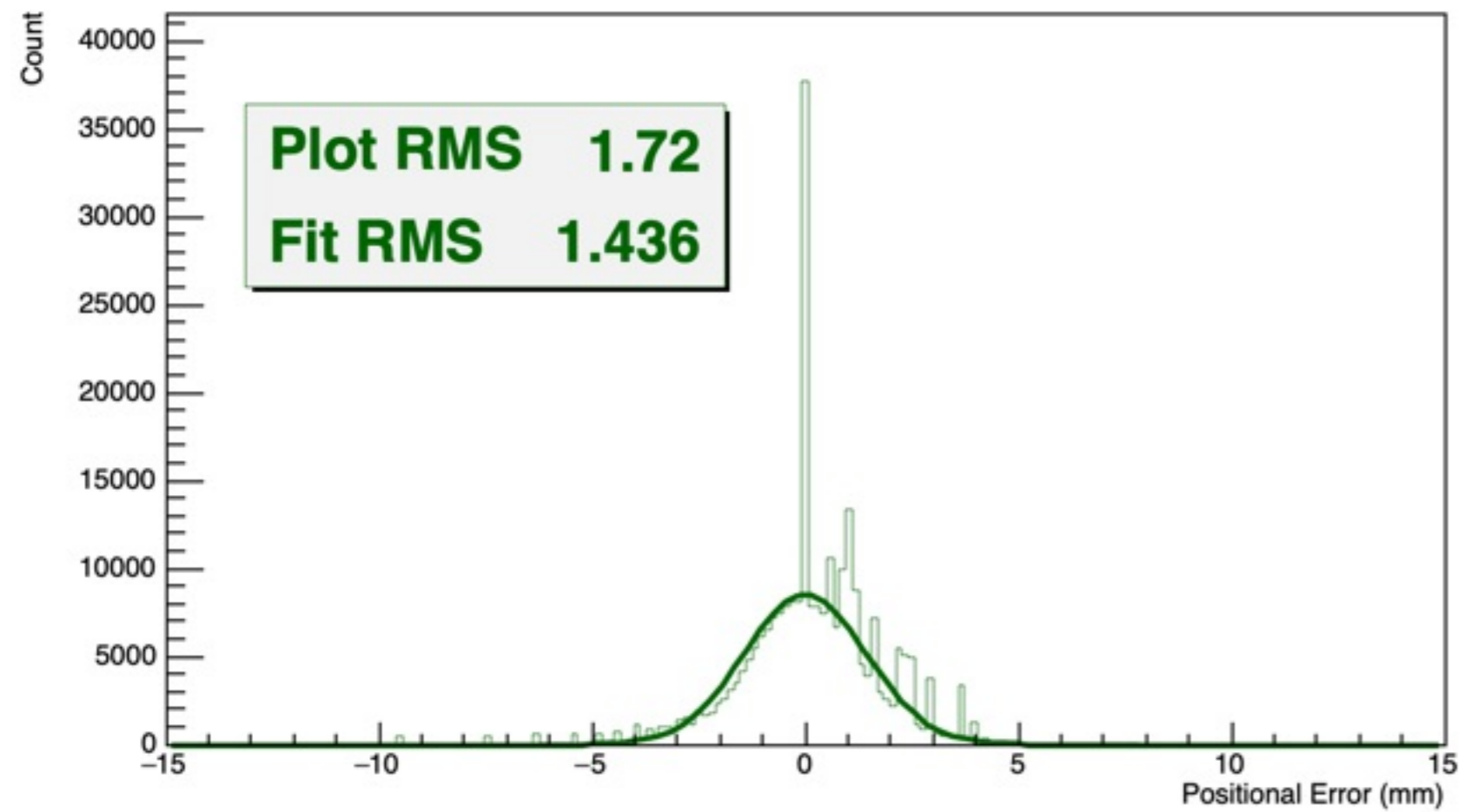
Positional Error - 50 PE/cm Yield, Z-Plane X



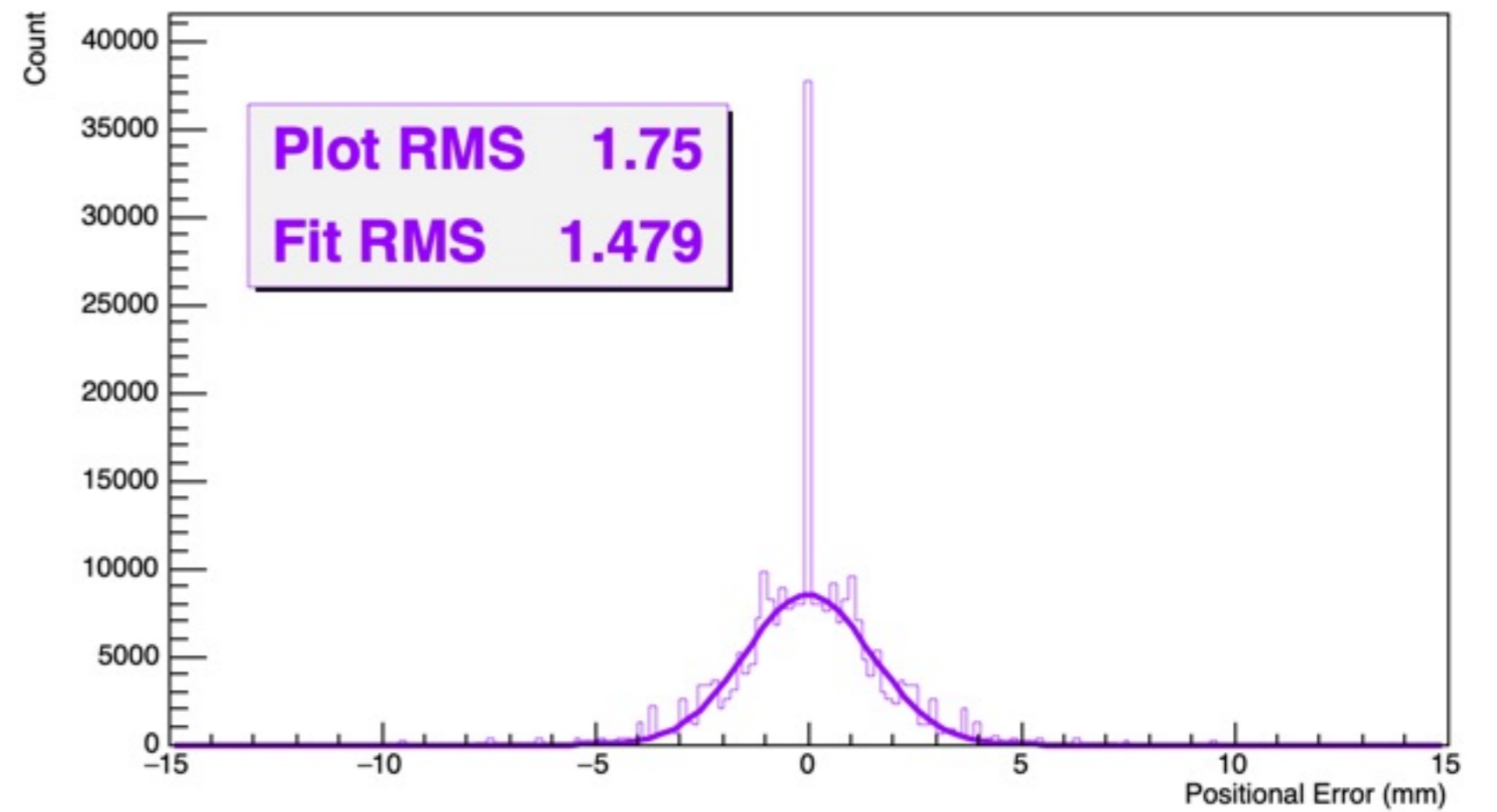
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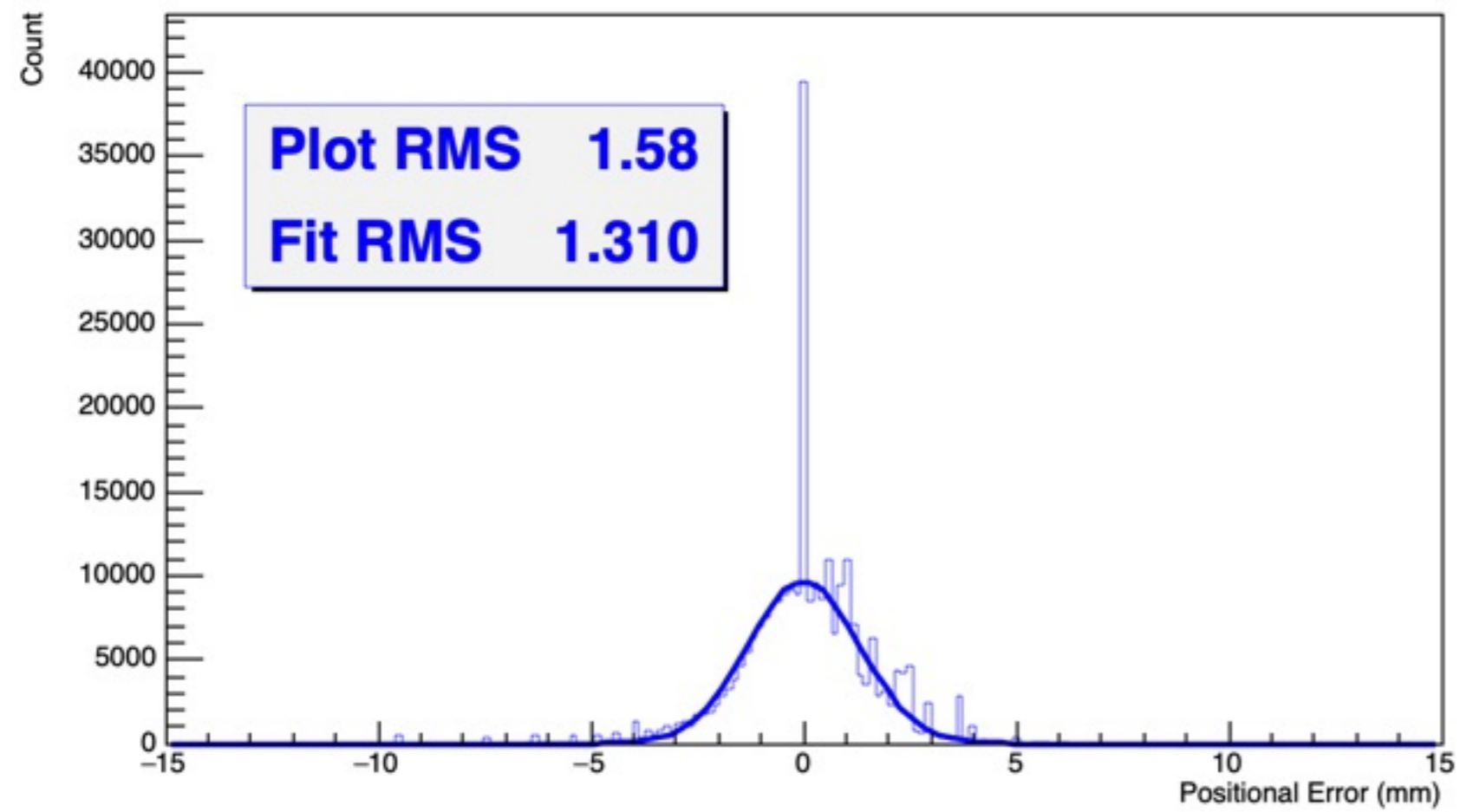
Y-Plane X



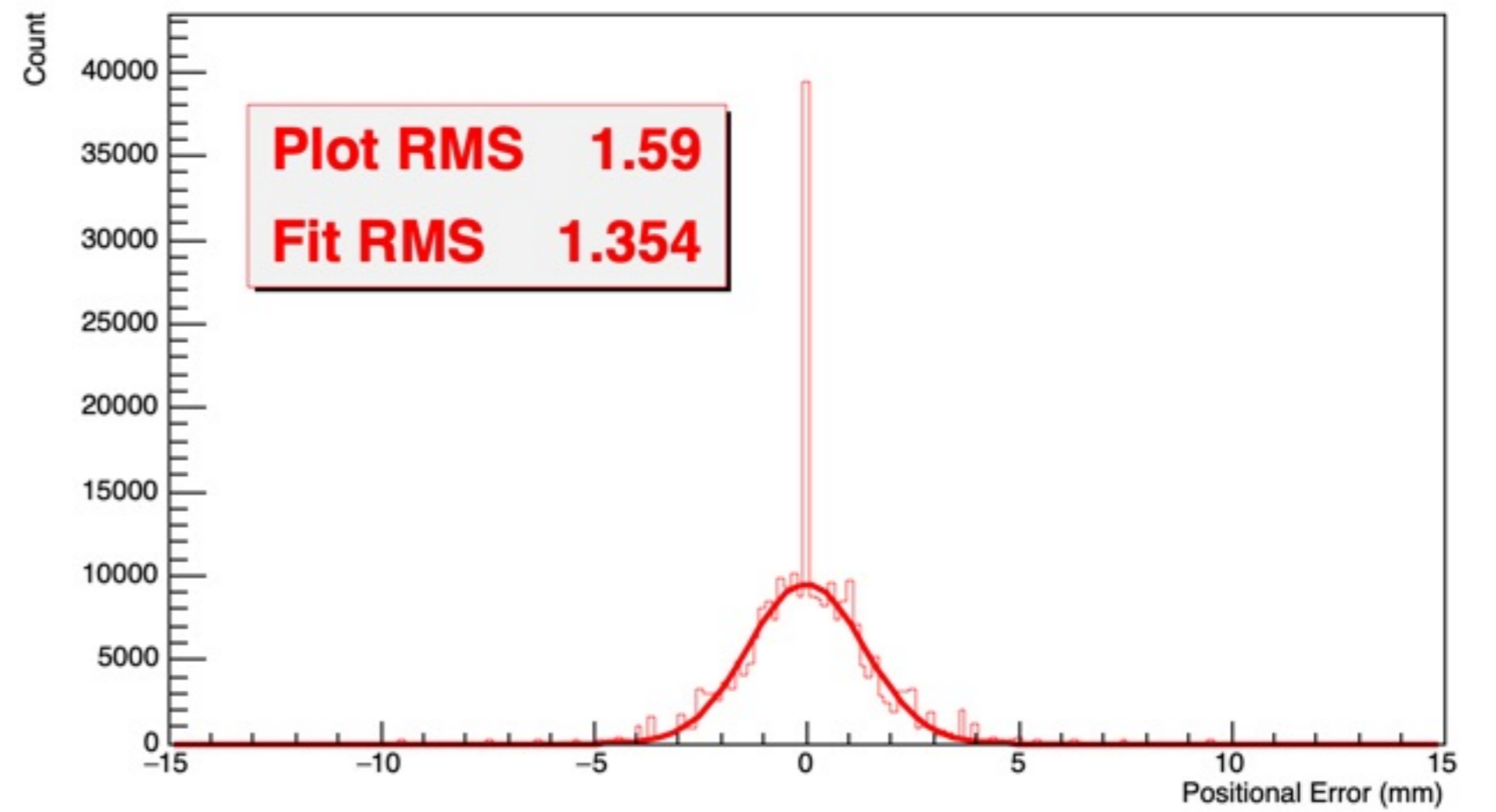
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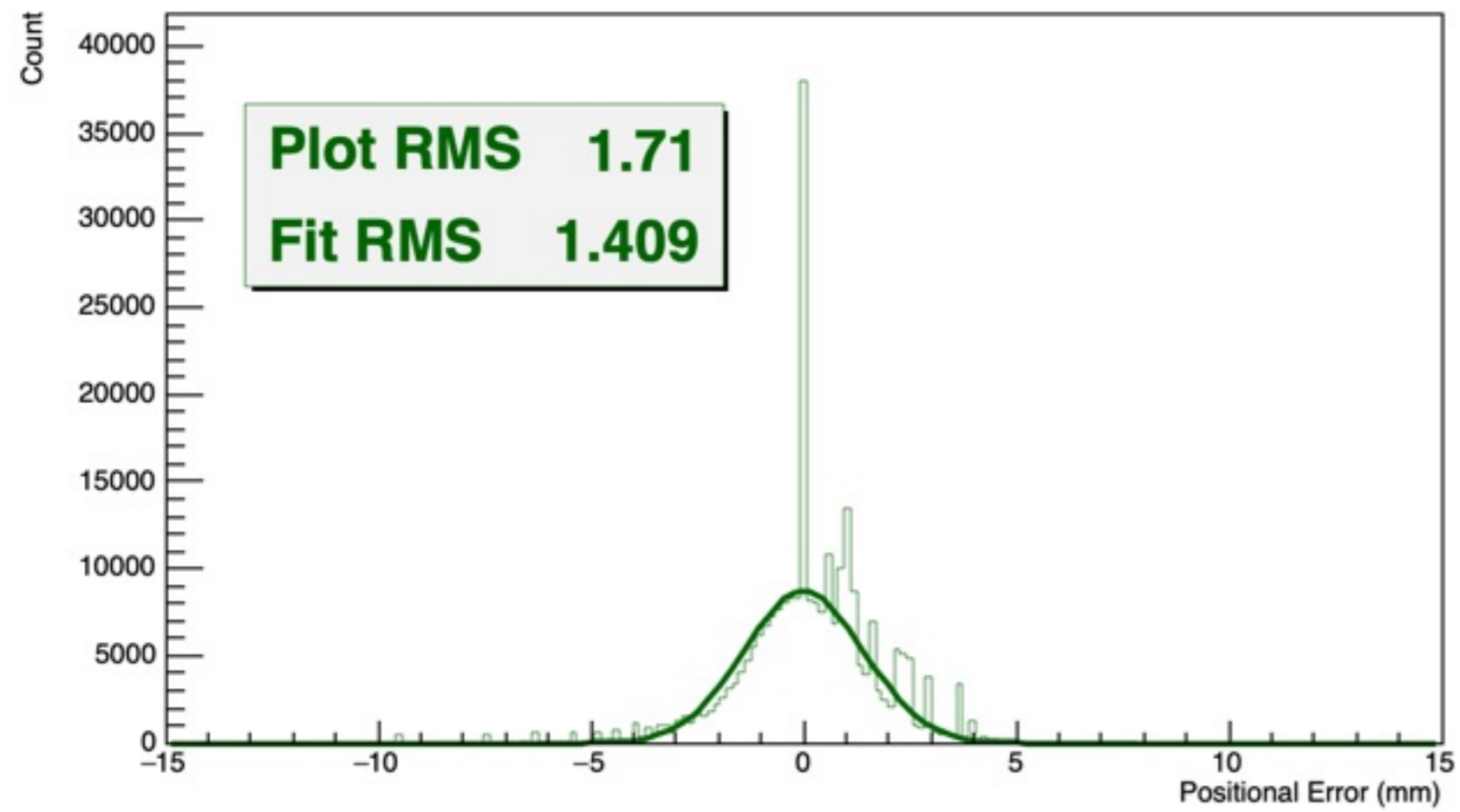
Positional Error - 55 PE/cm Yield, Z-Plane X



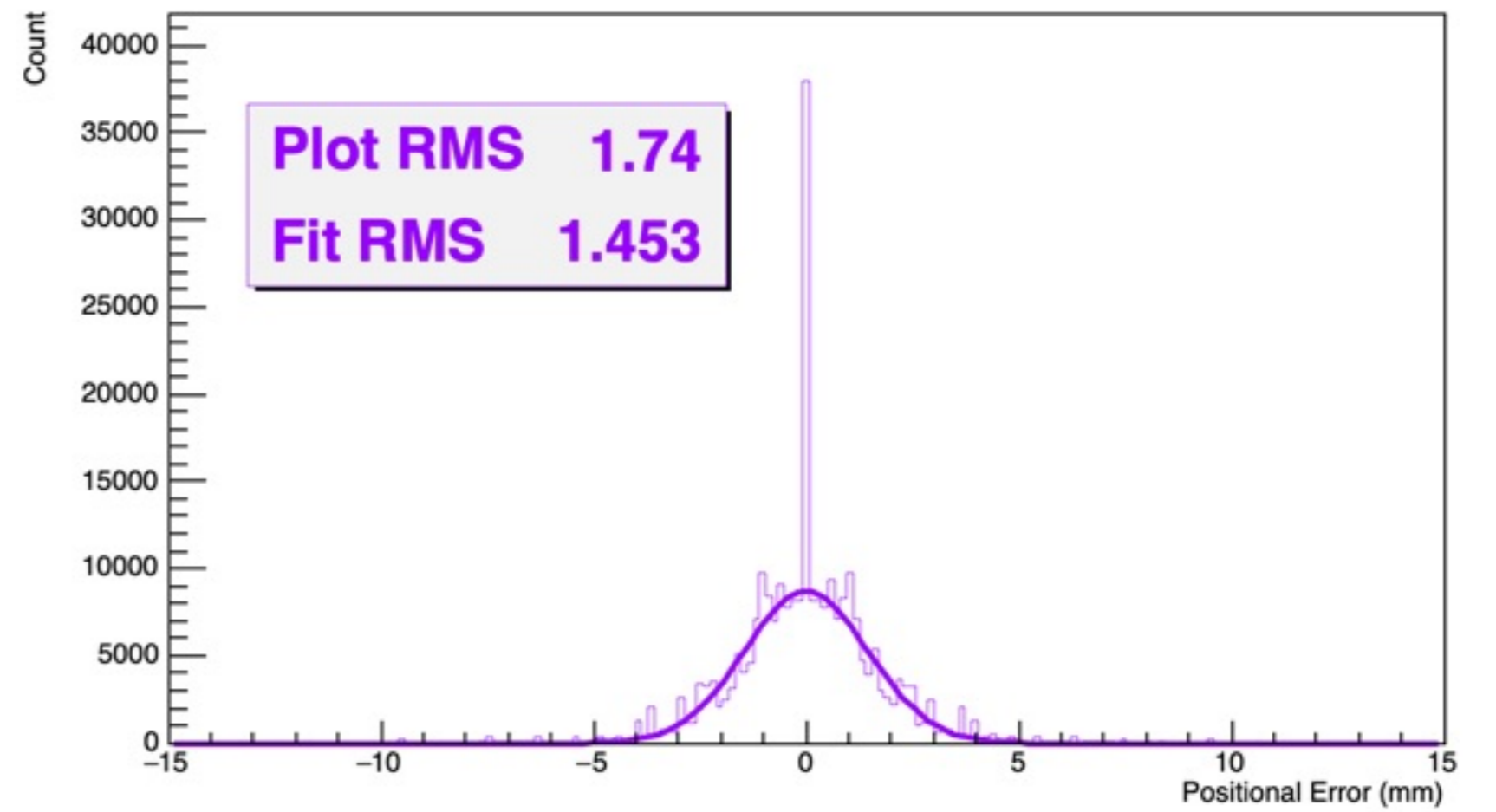
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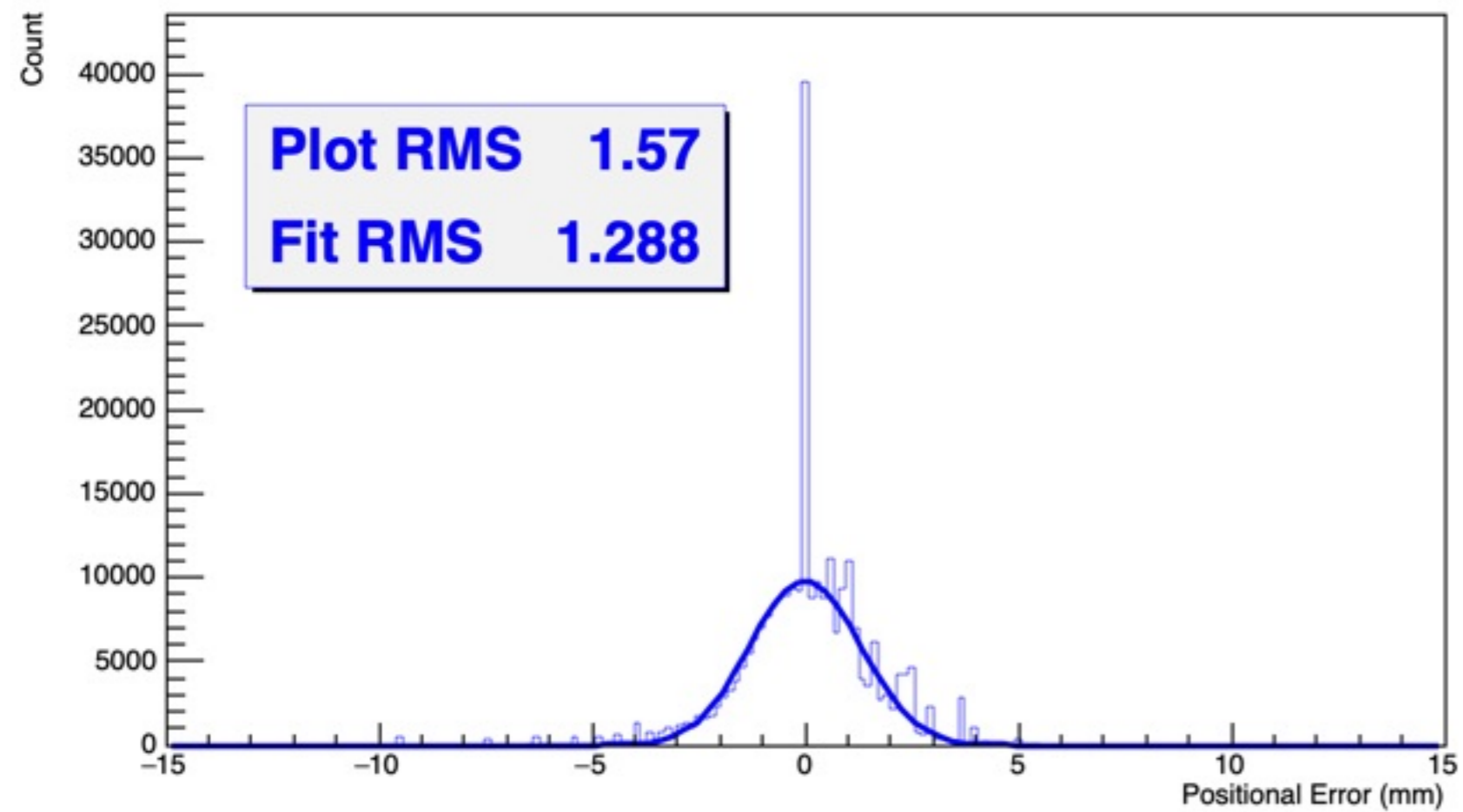
Y-Plane X



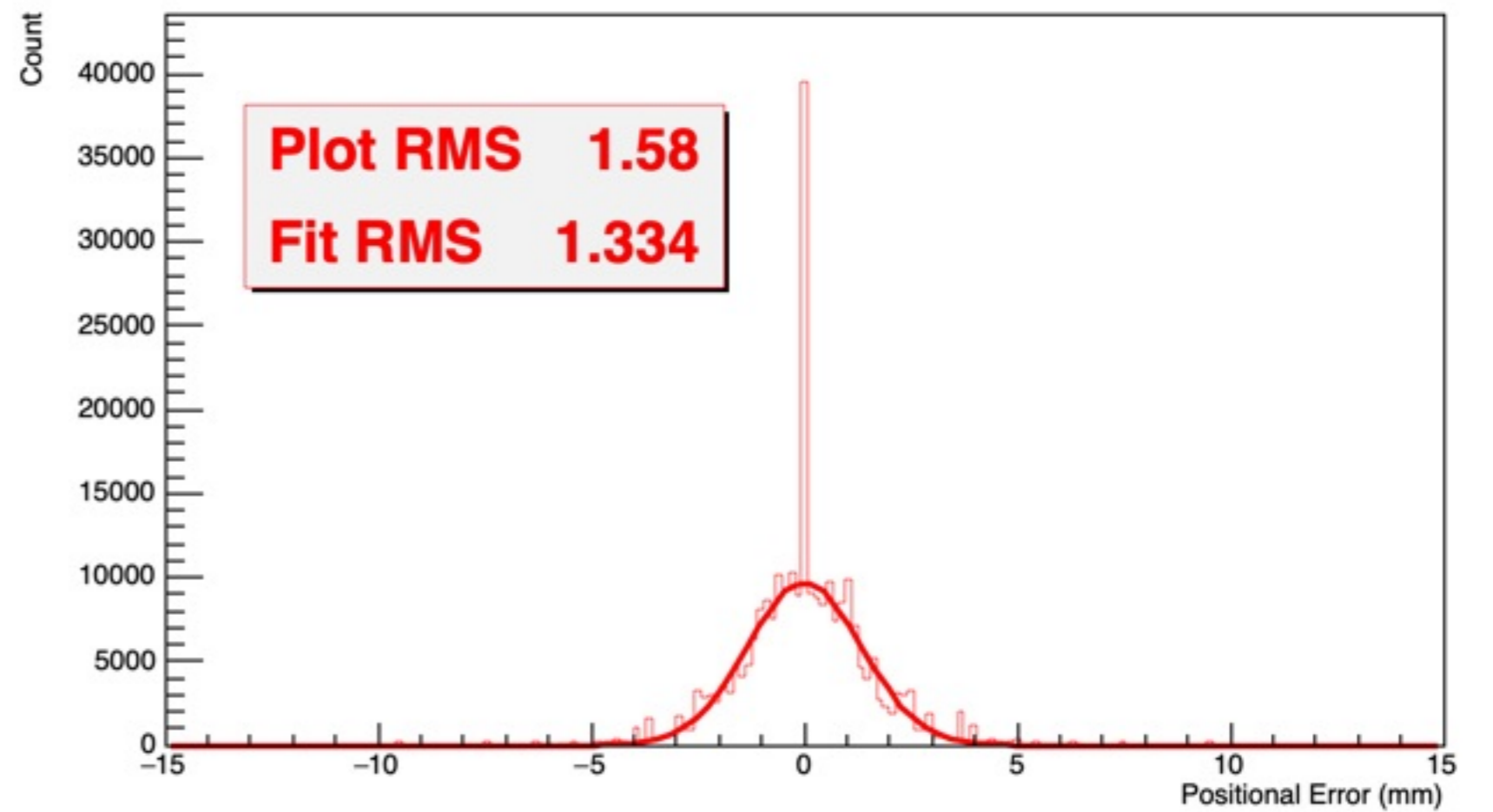
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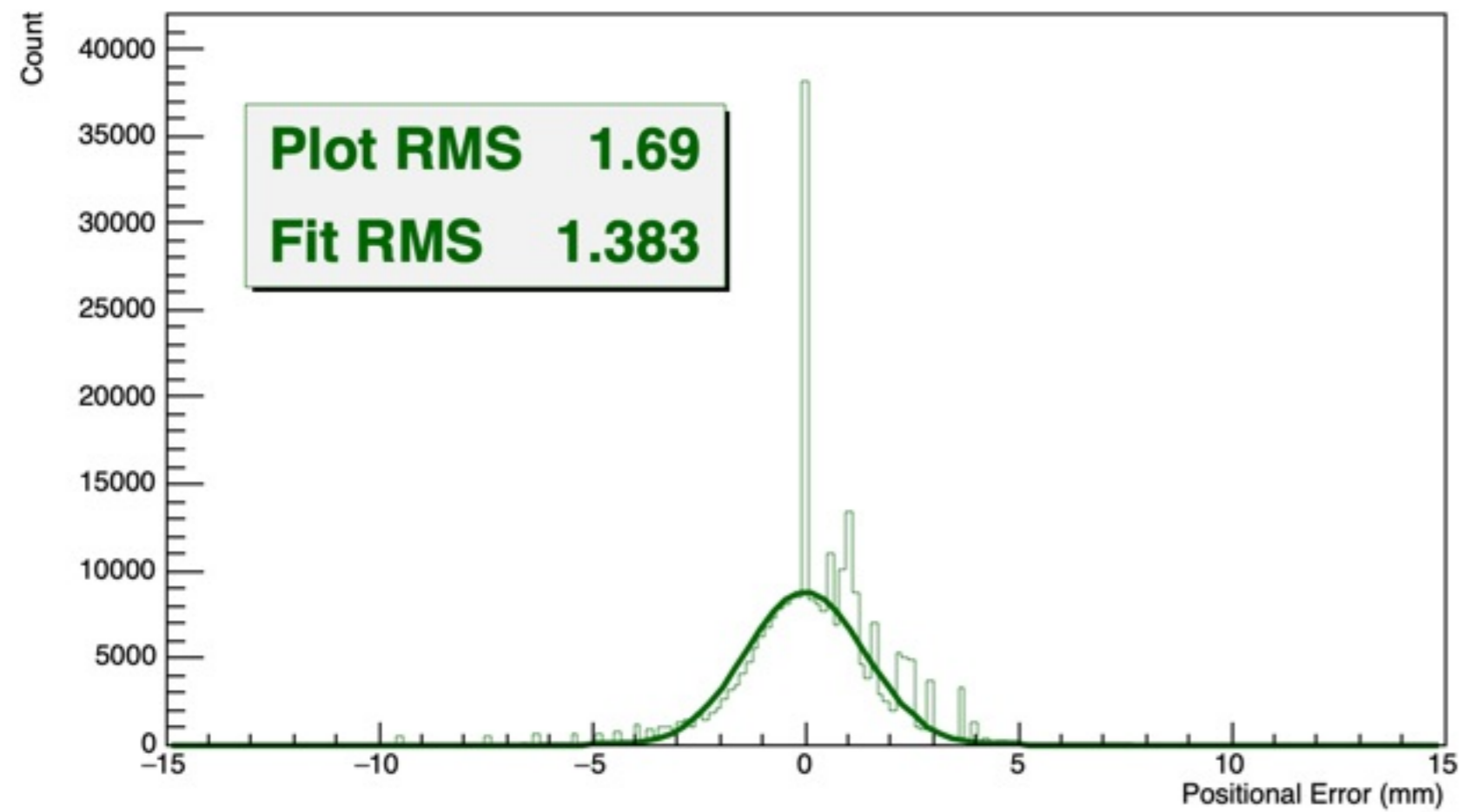
Positional Error - 60 PE/cm Yield, Z-Plane X



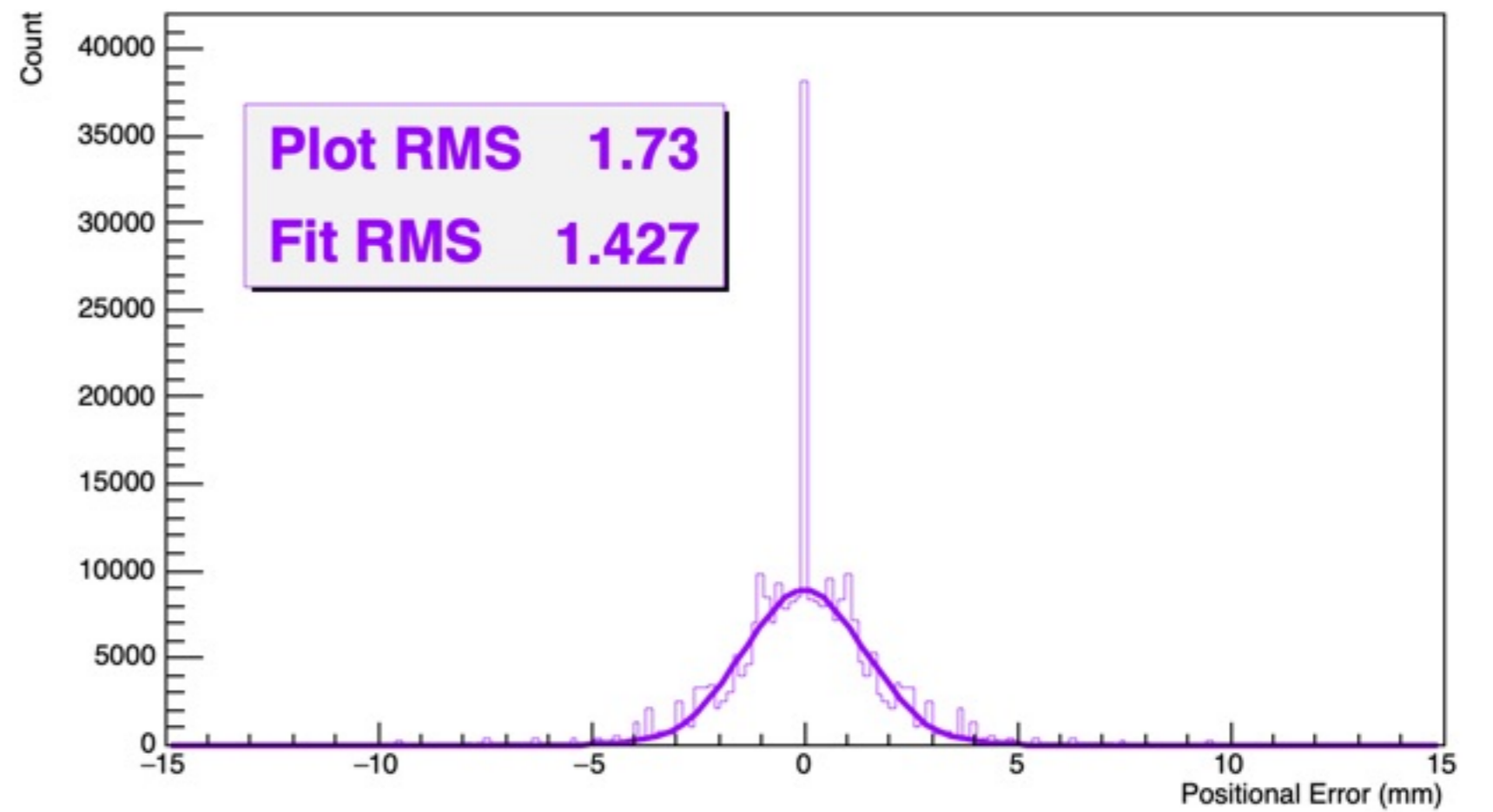
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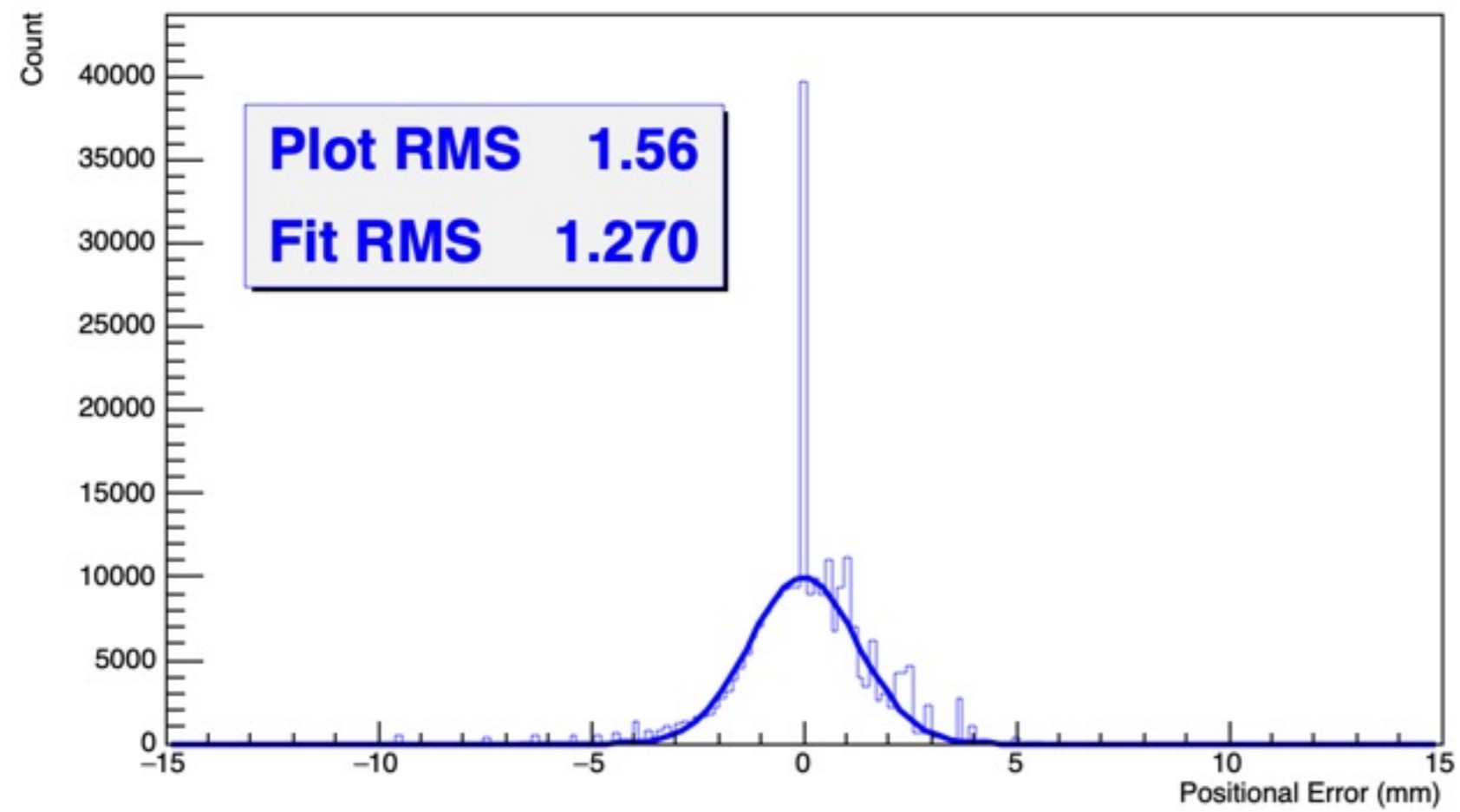
Y-Plane X



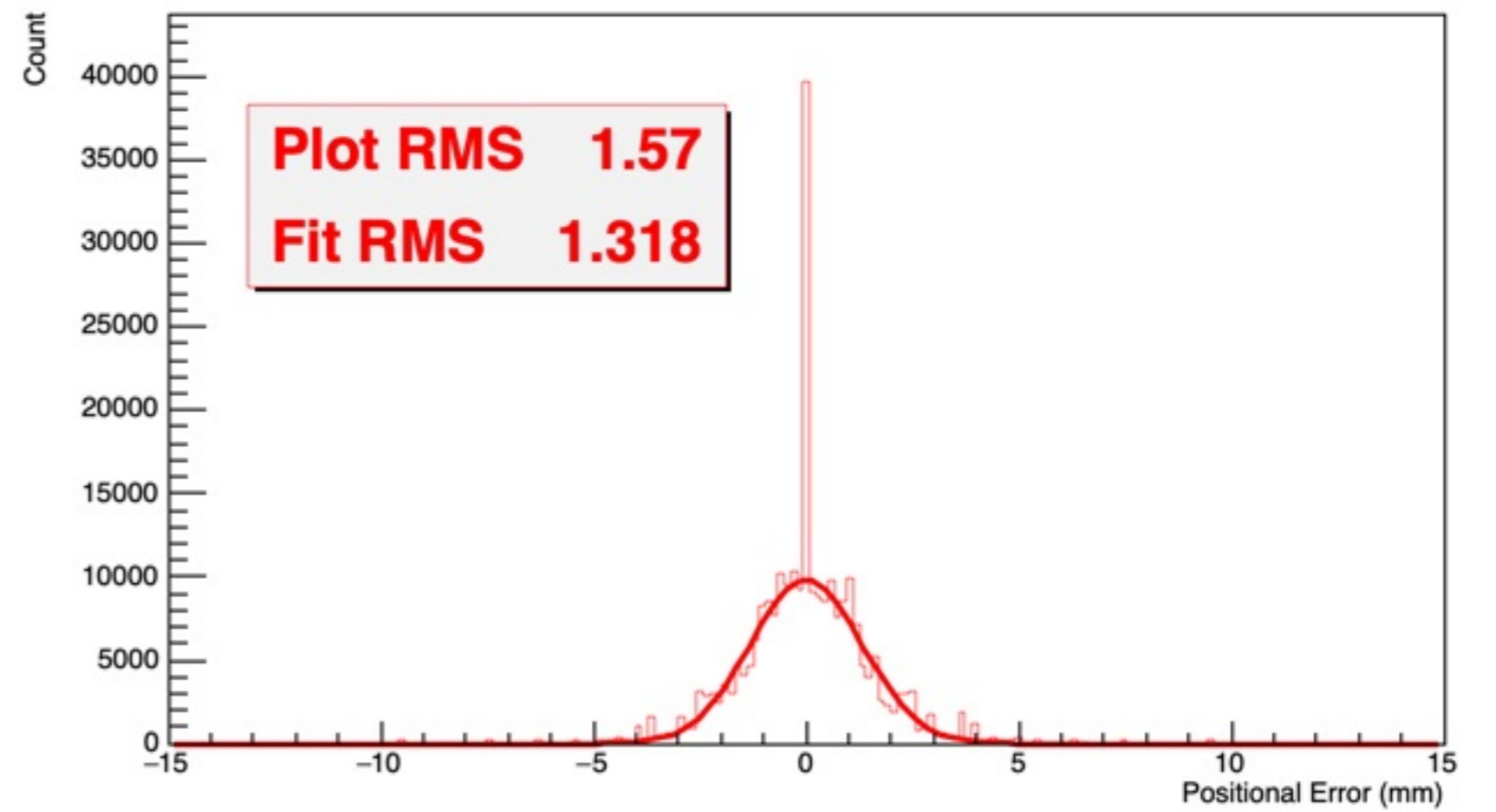
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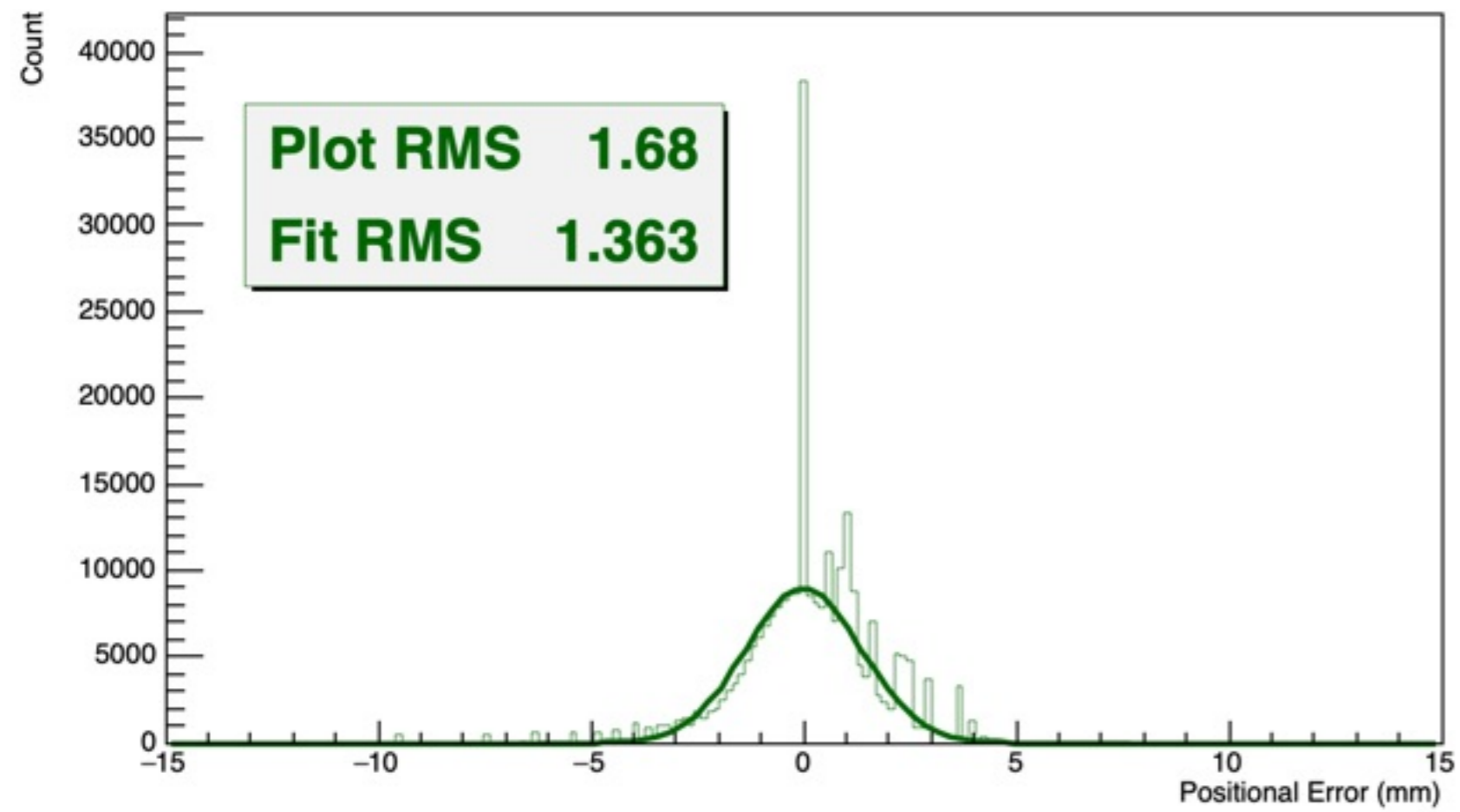
Positional Error - 65 PE/cm Yield, Z-Plane X



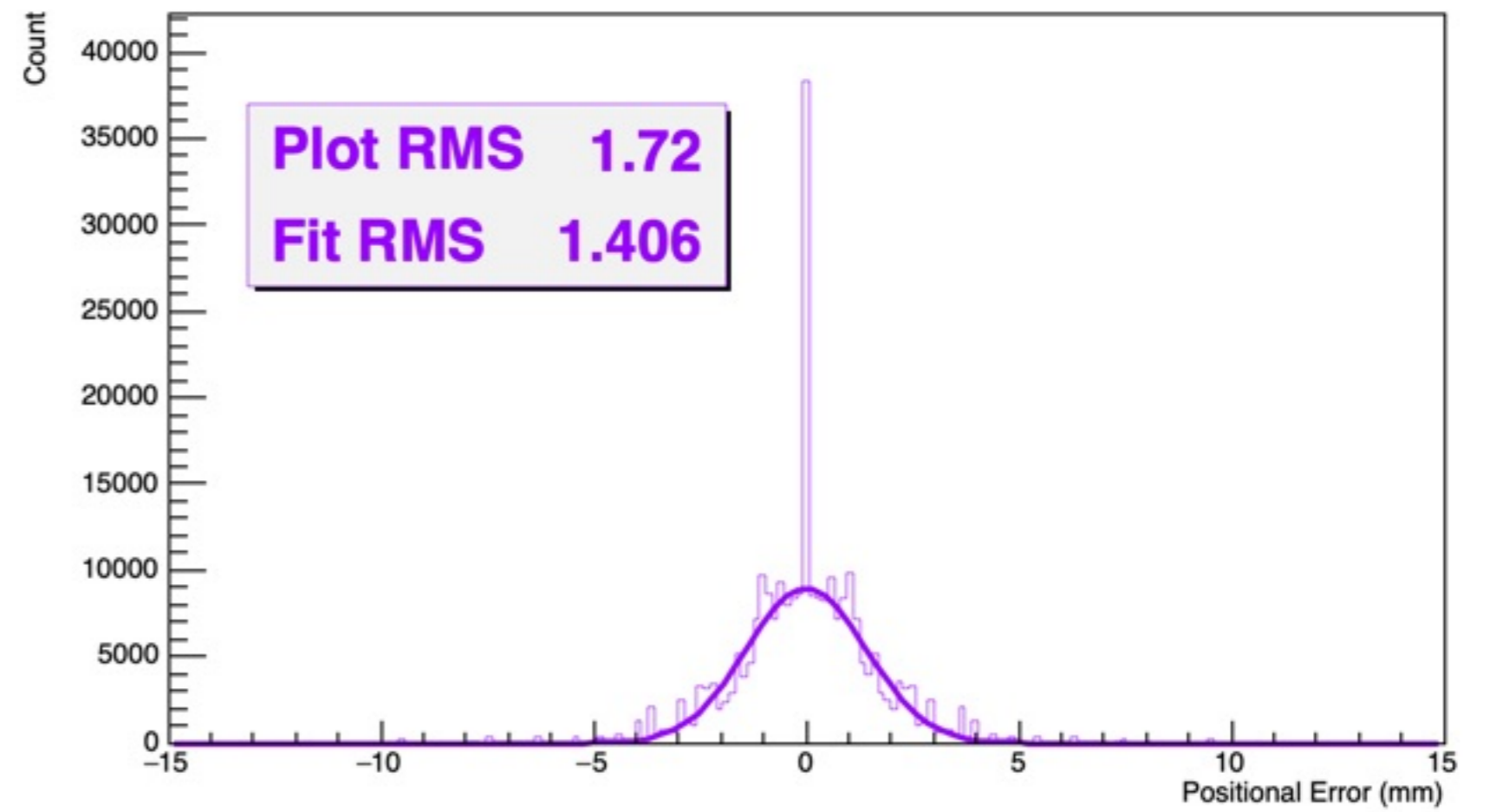
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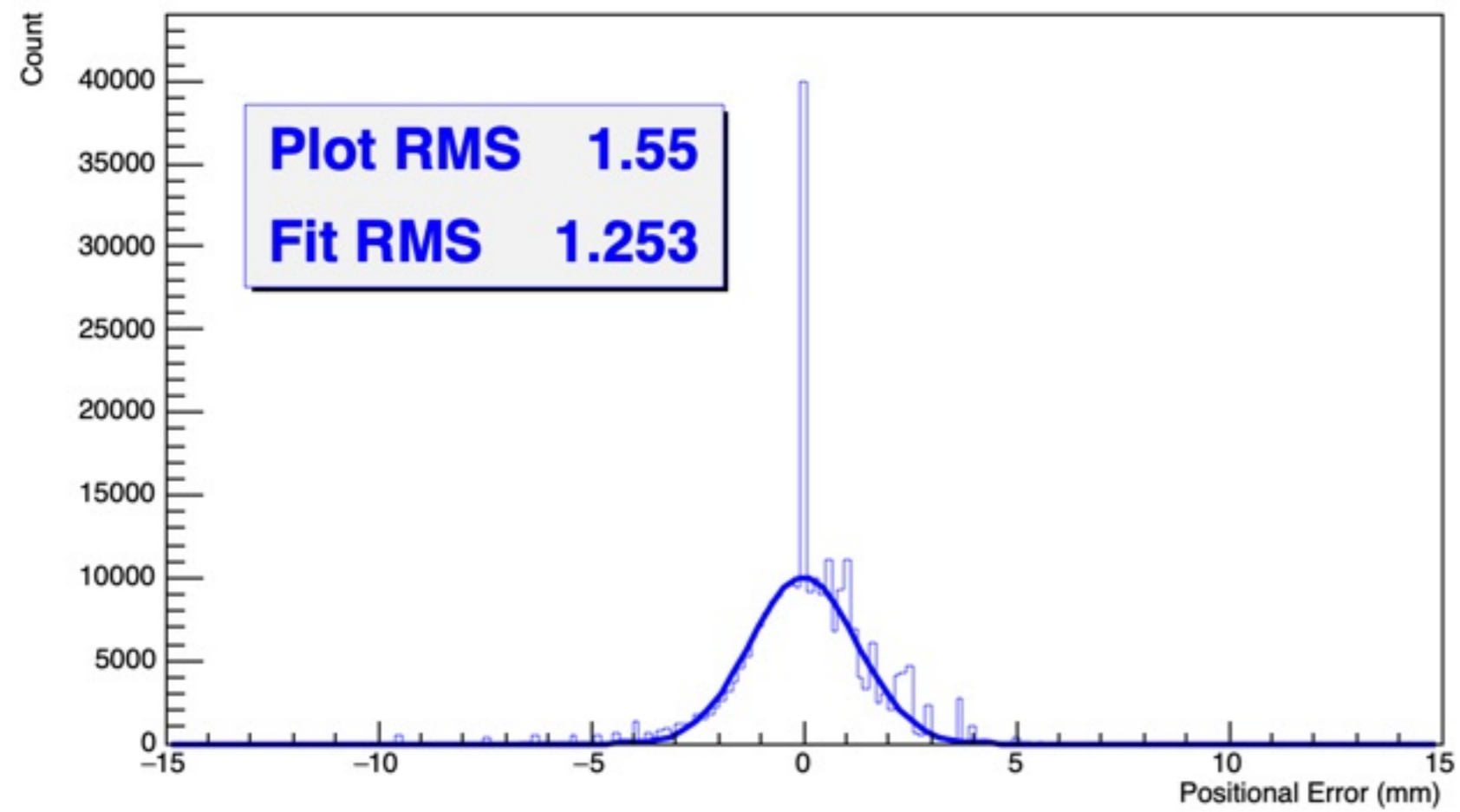
Y-Plane X



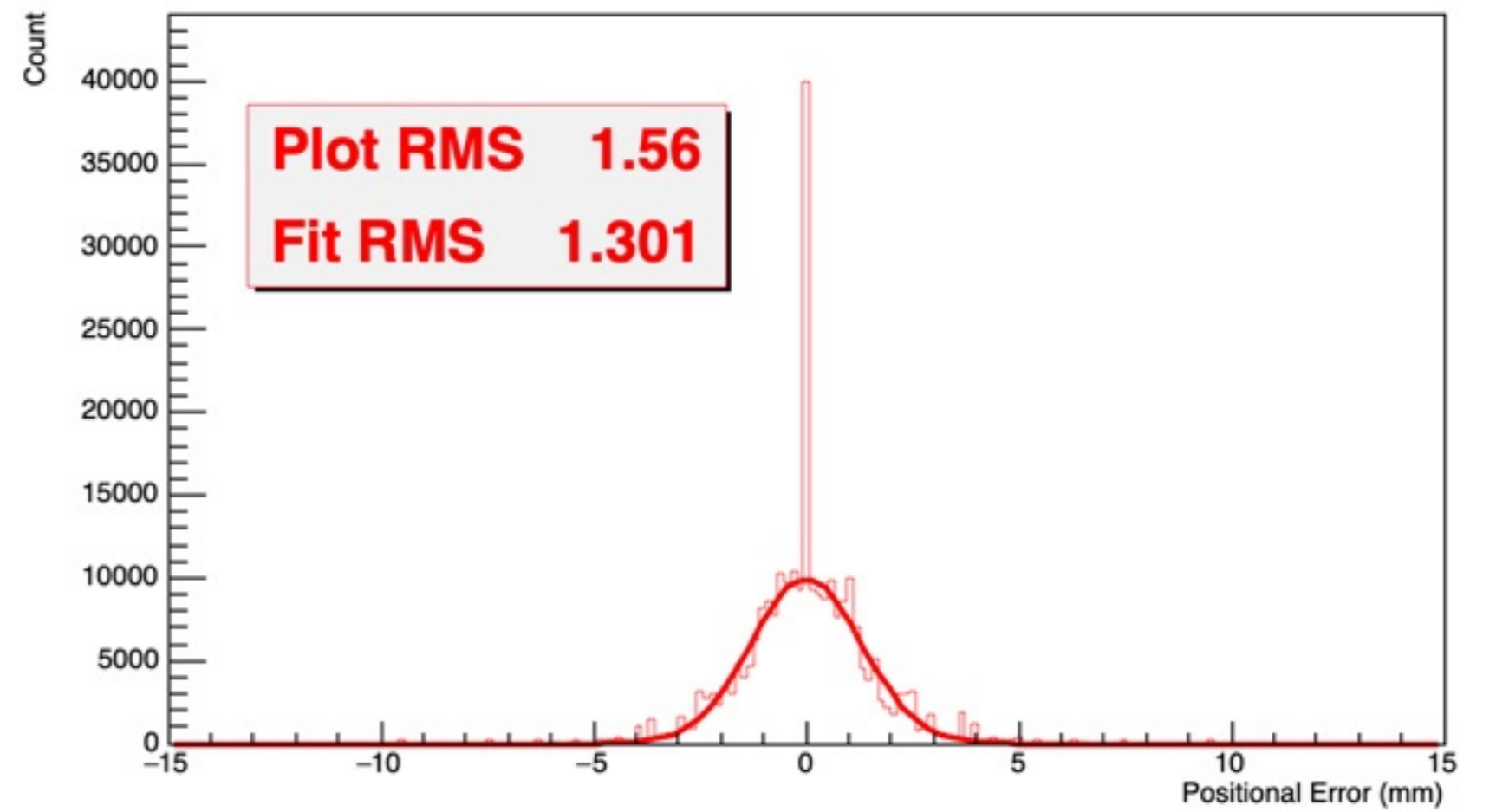
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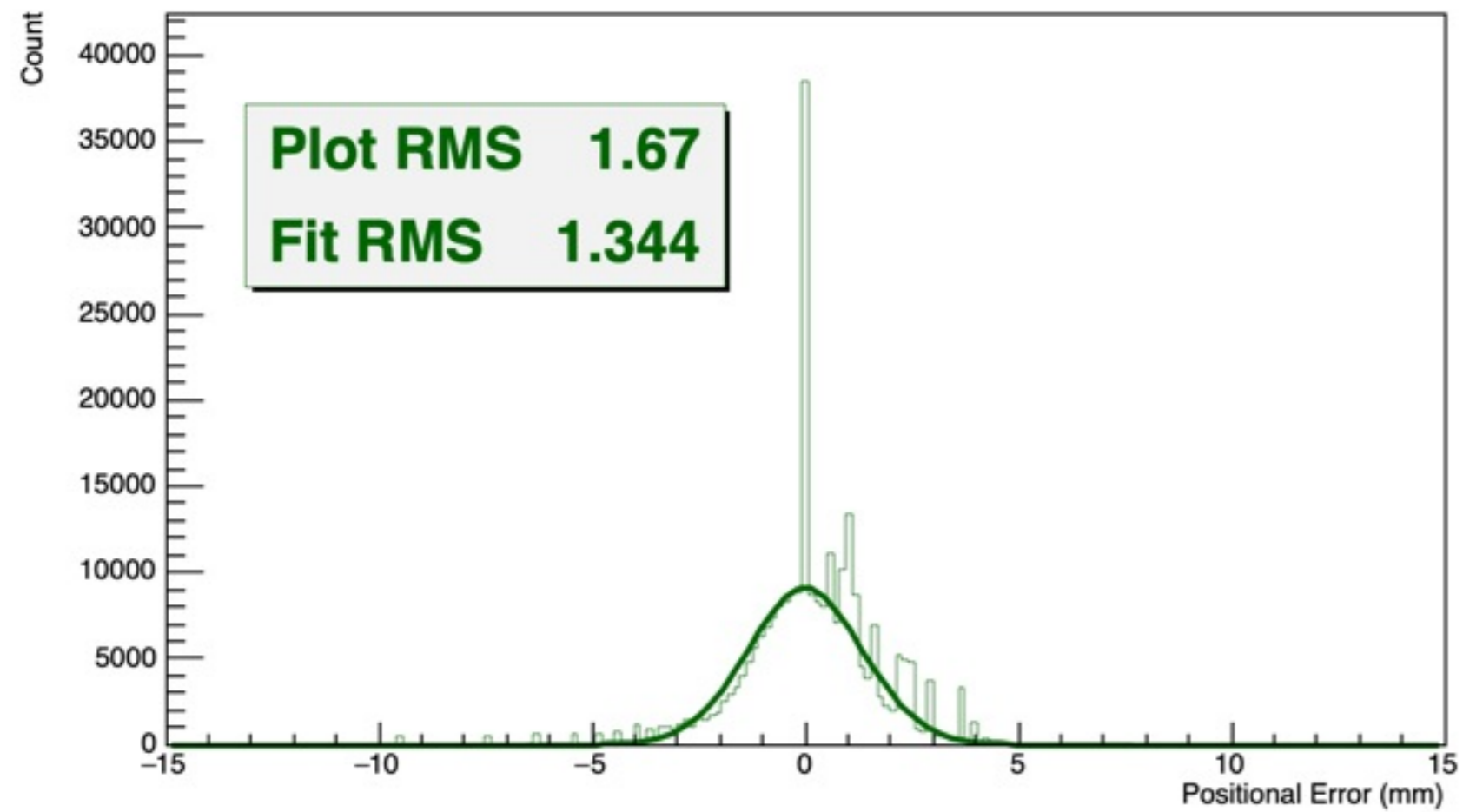
Positional Error - 70 PE/cm Yield, Z-Plane X



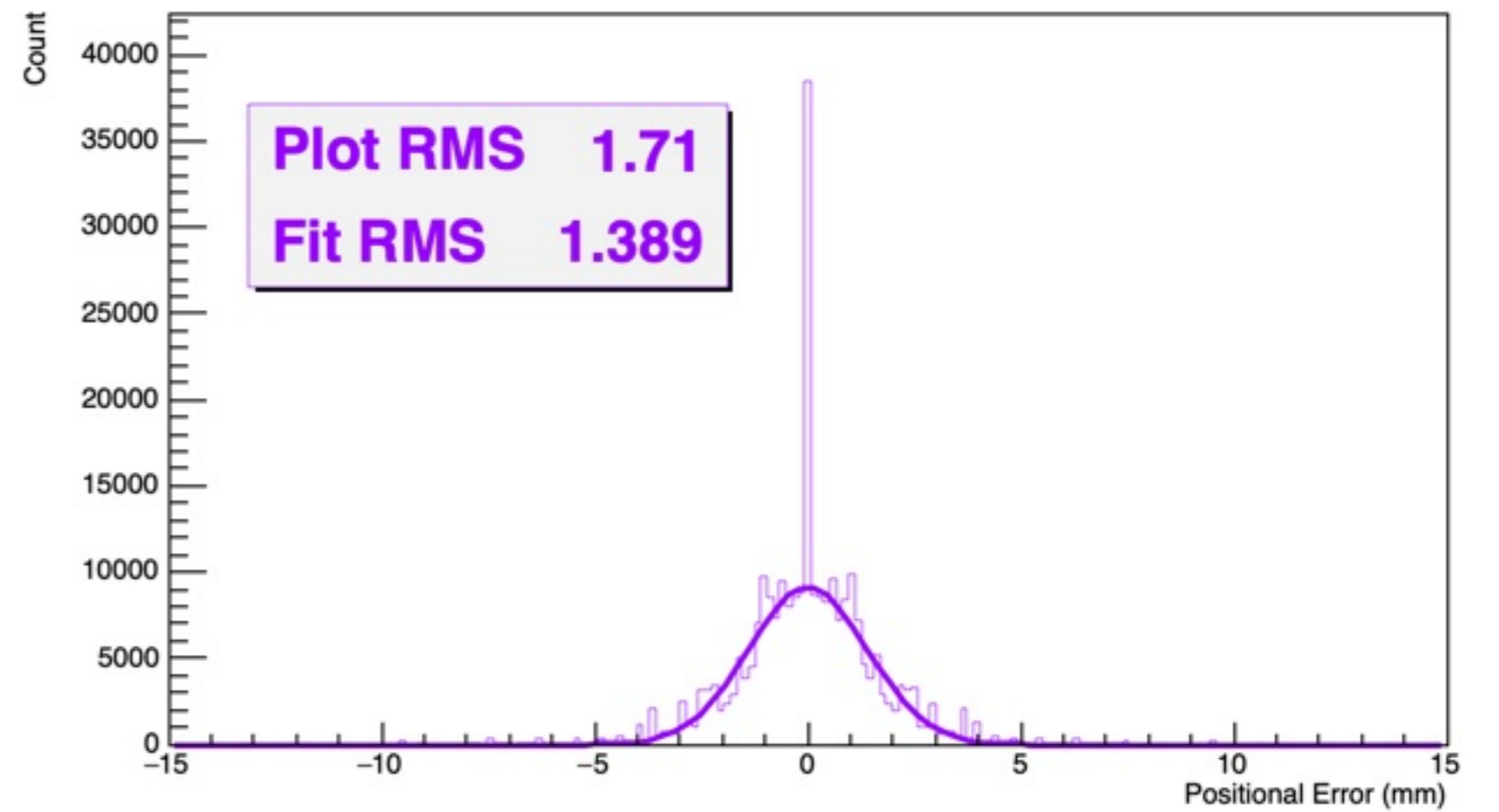
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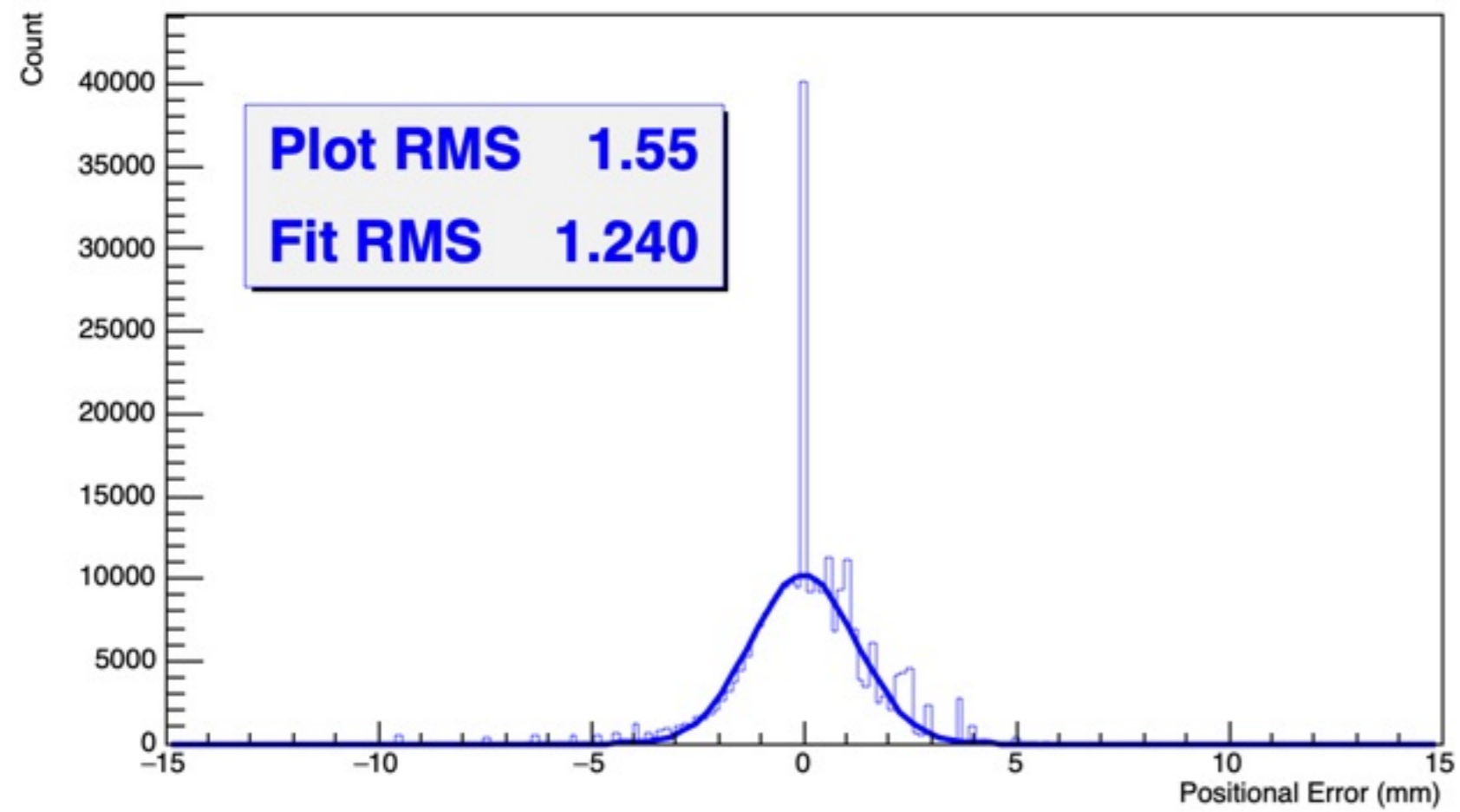
Y-Plane X



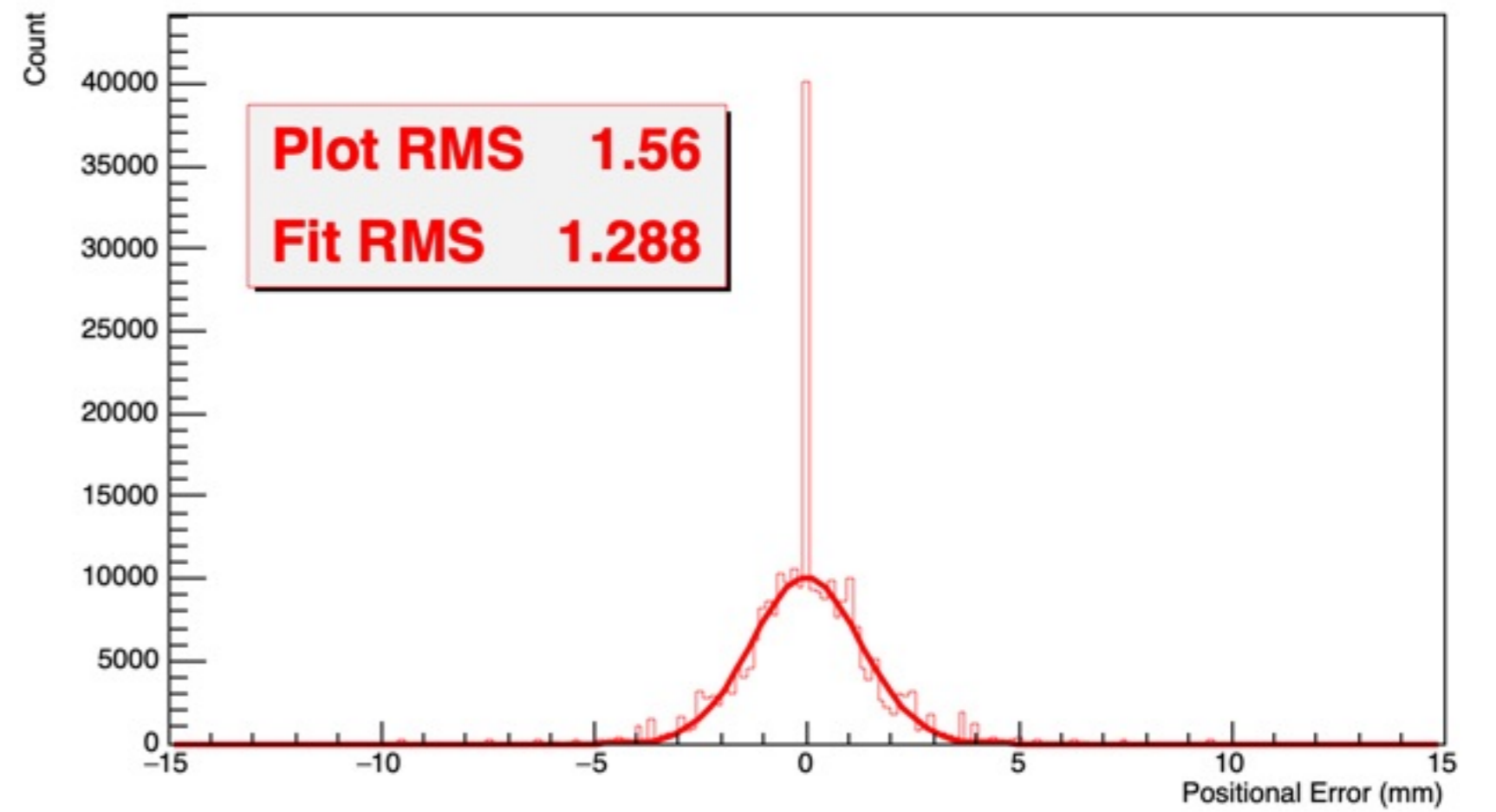
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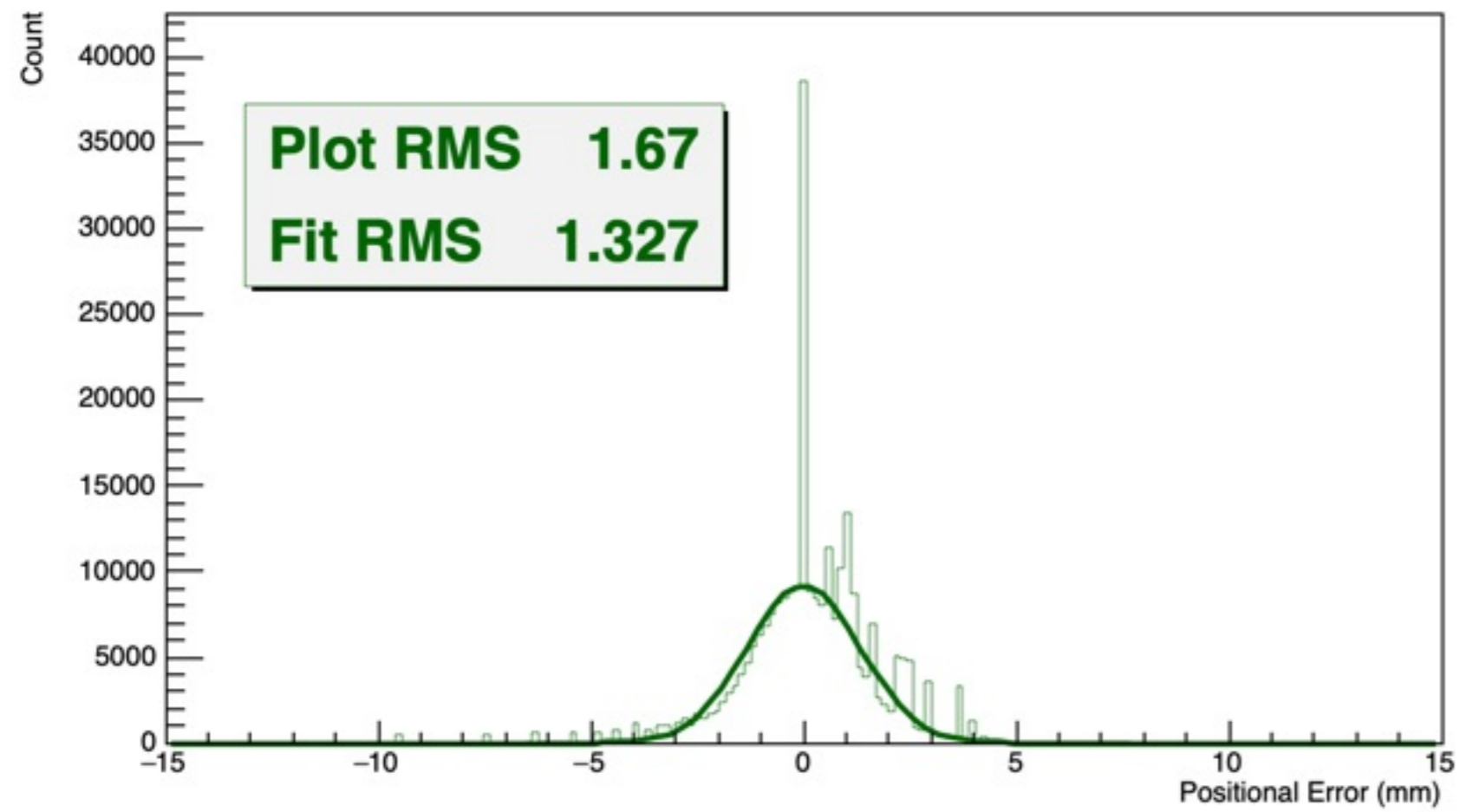
Positional Error - 75 PE/cm Yield, Z-Plane X



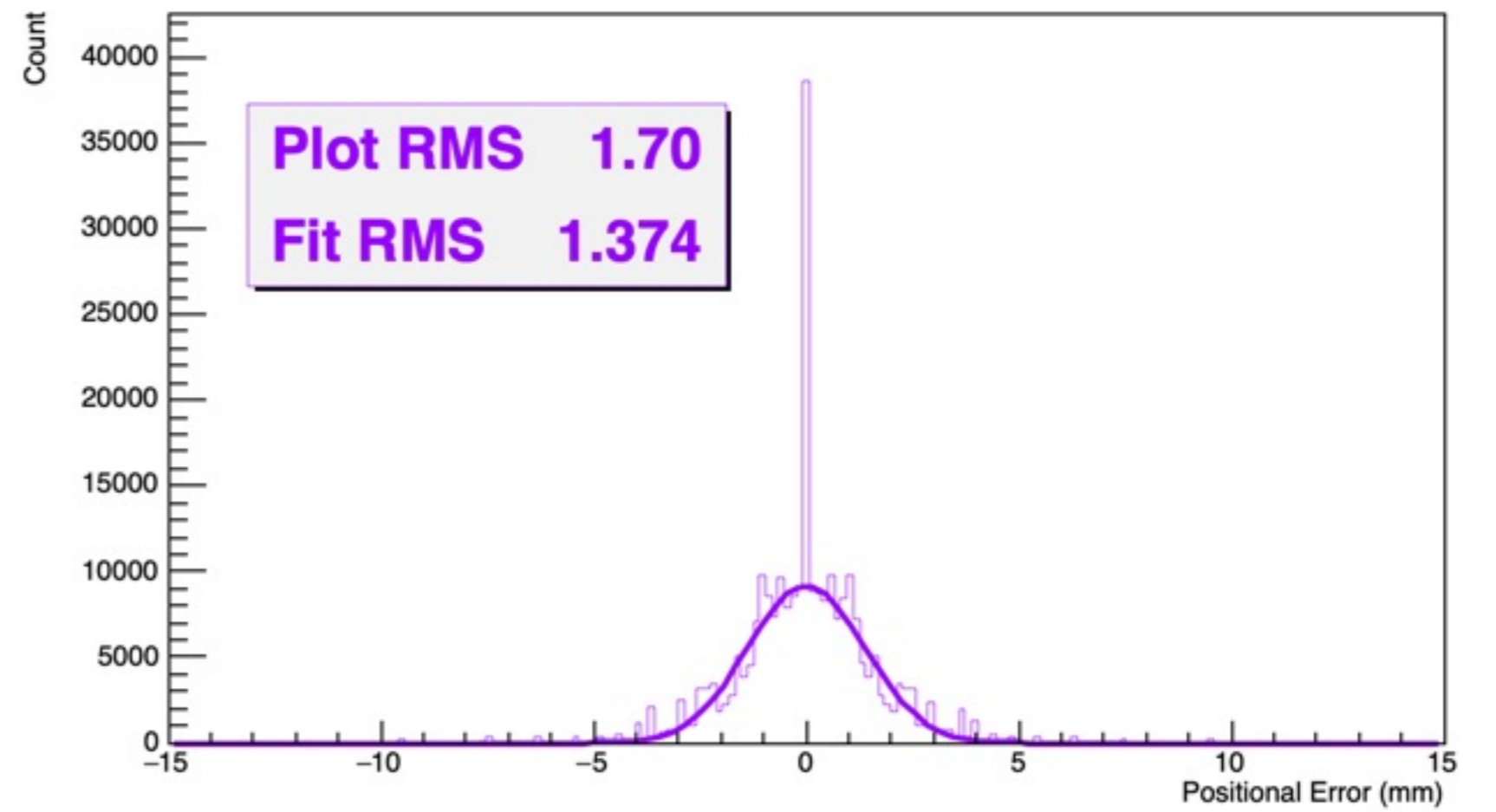
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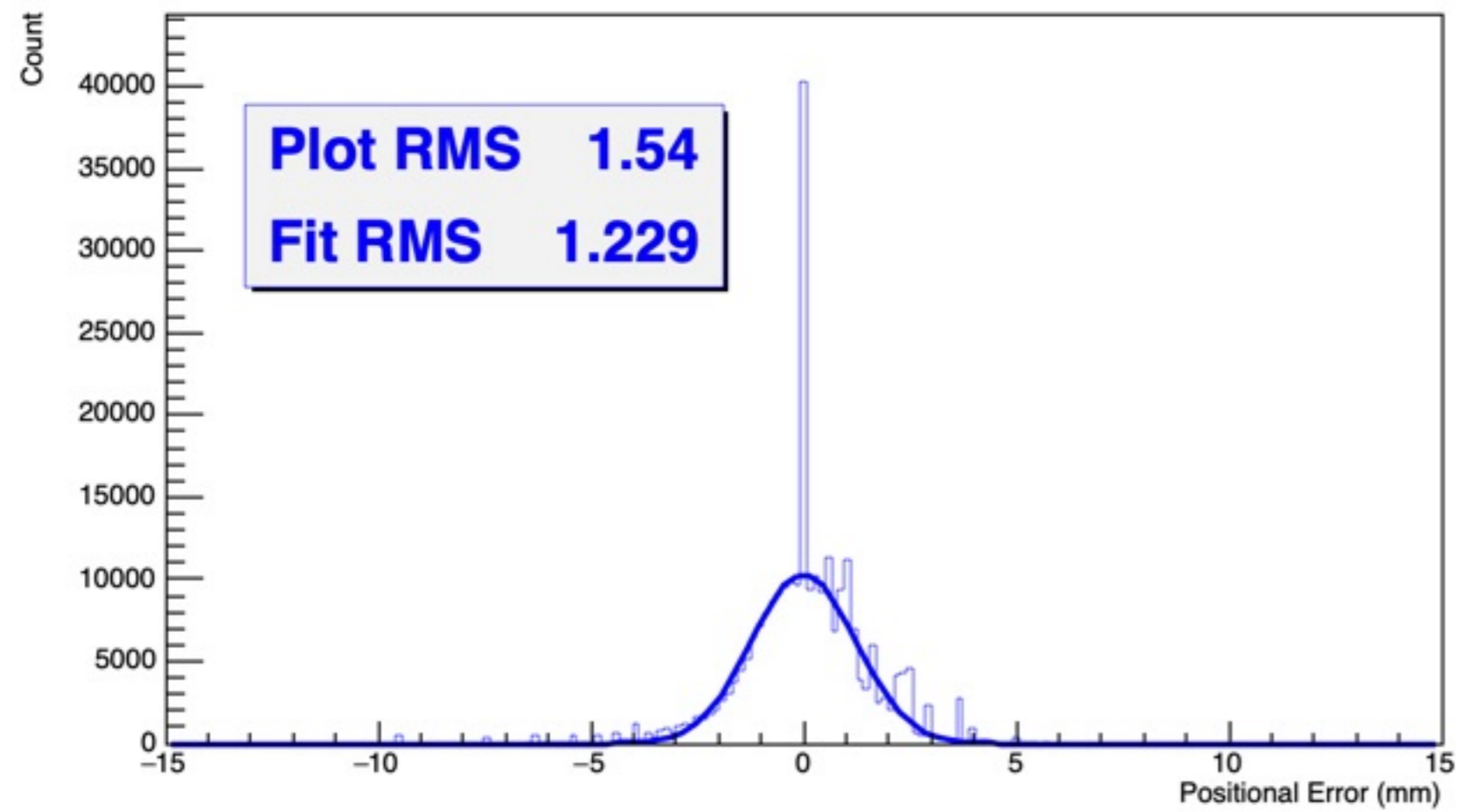
Y-Plane X



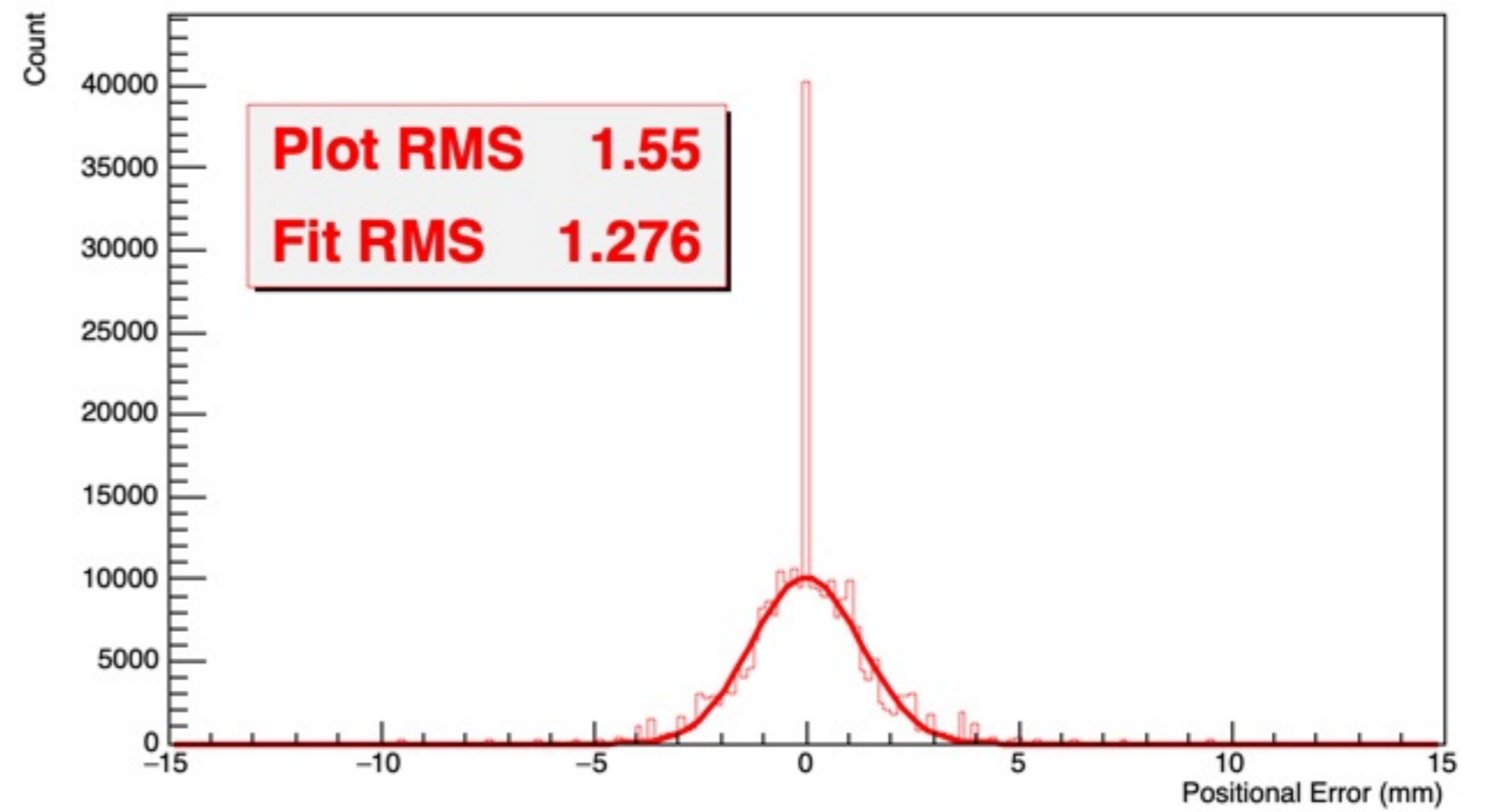
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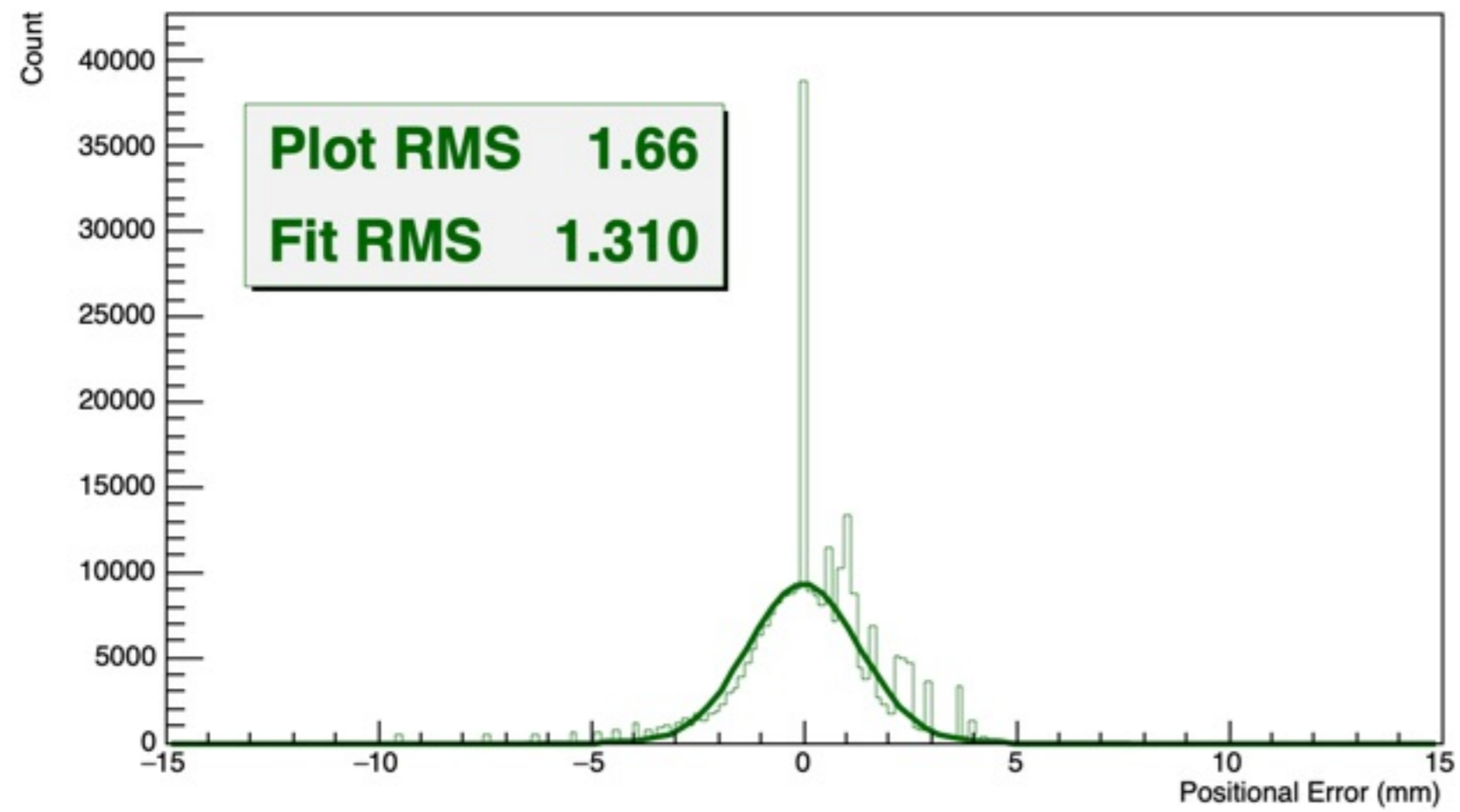
Positional Error - 80 PE/cm Yield, Z-Plane X



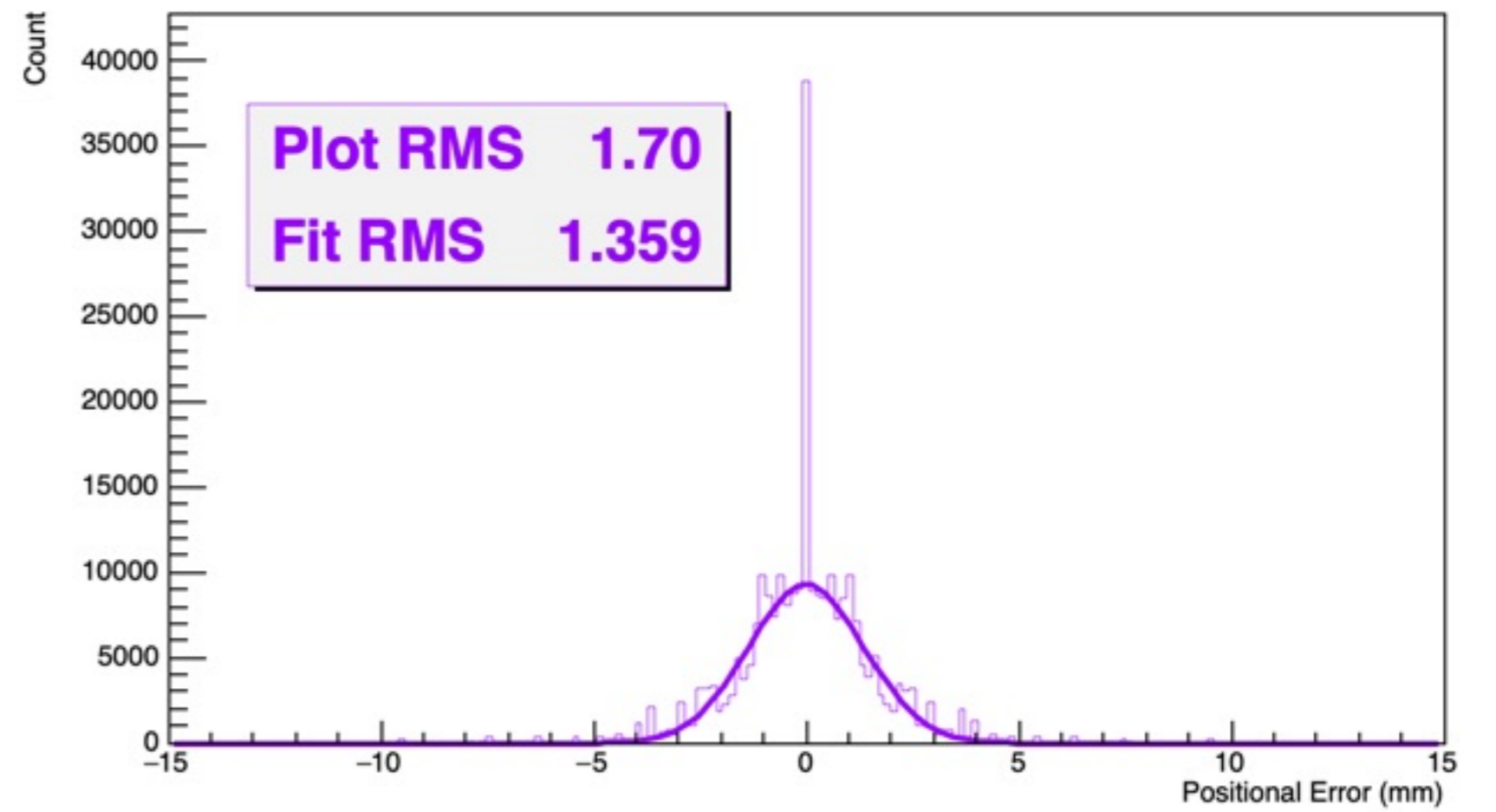
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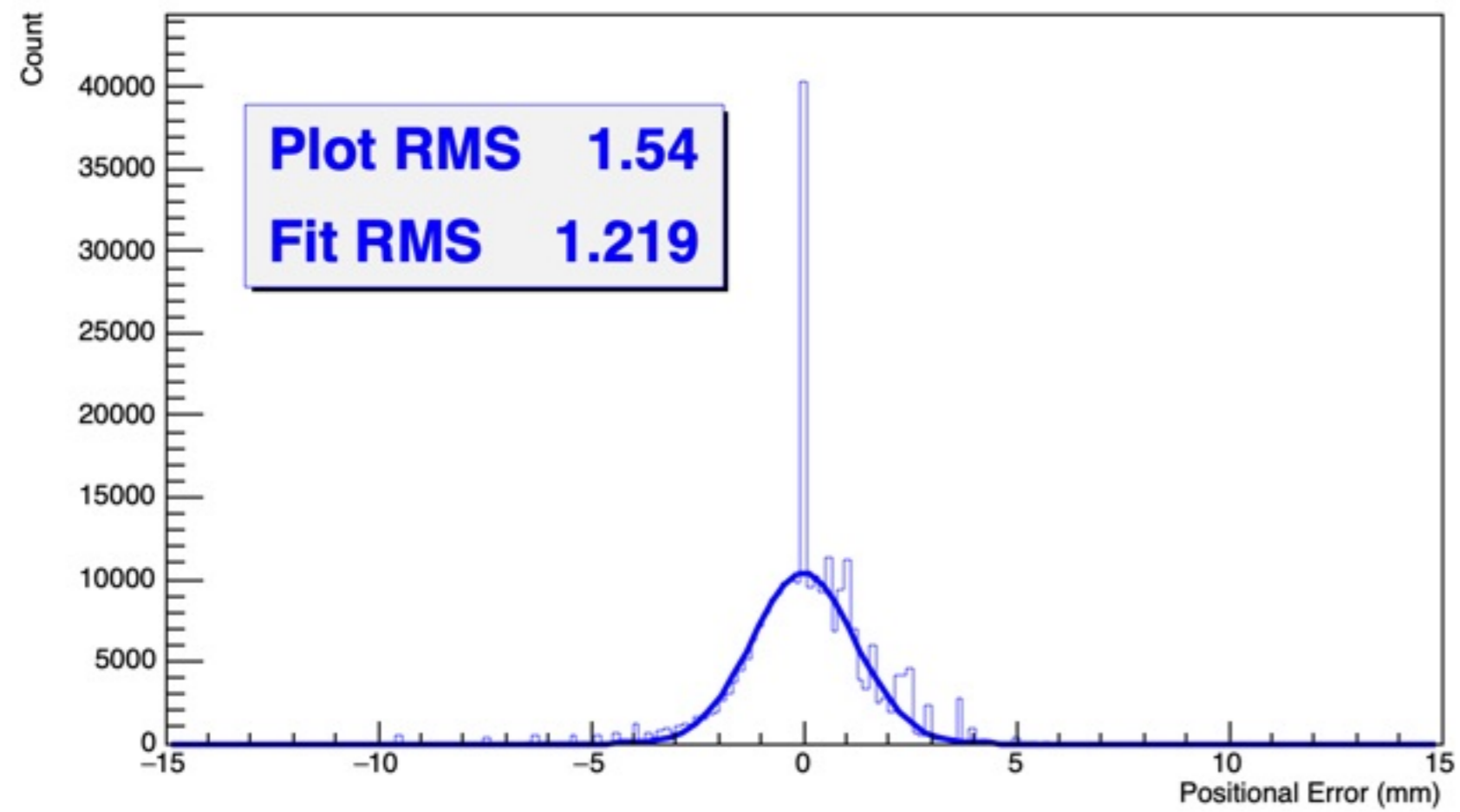
Y-Plane X



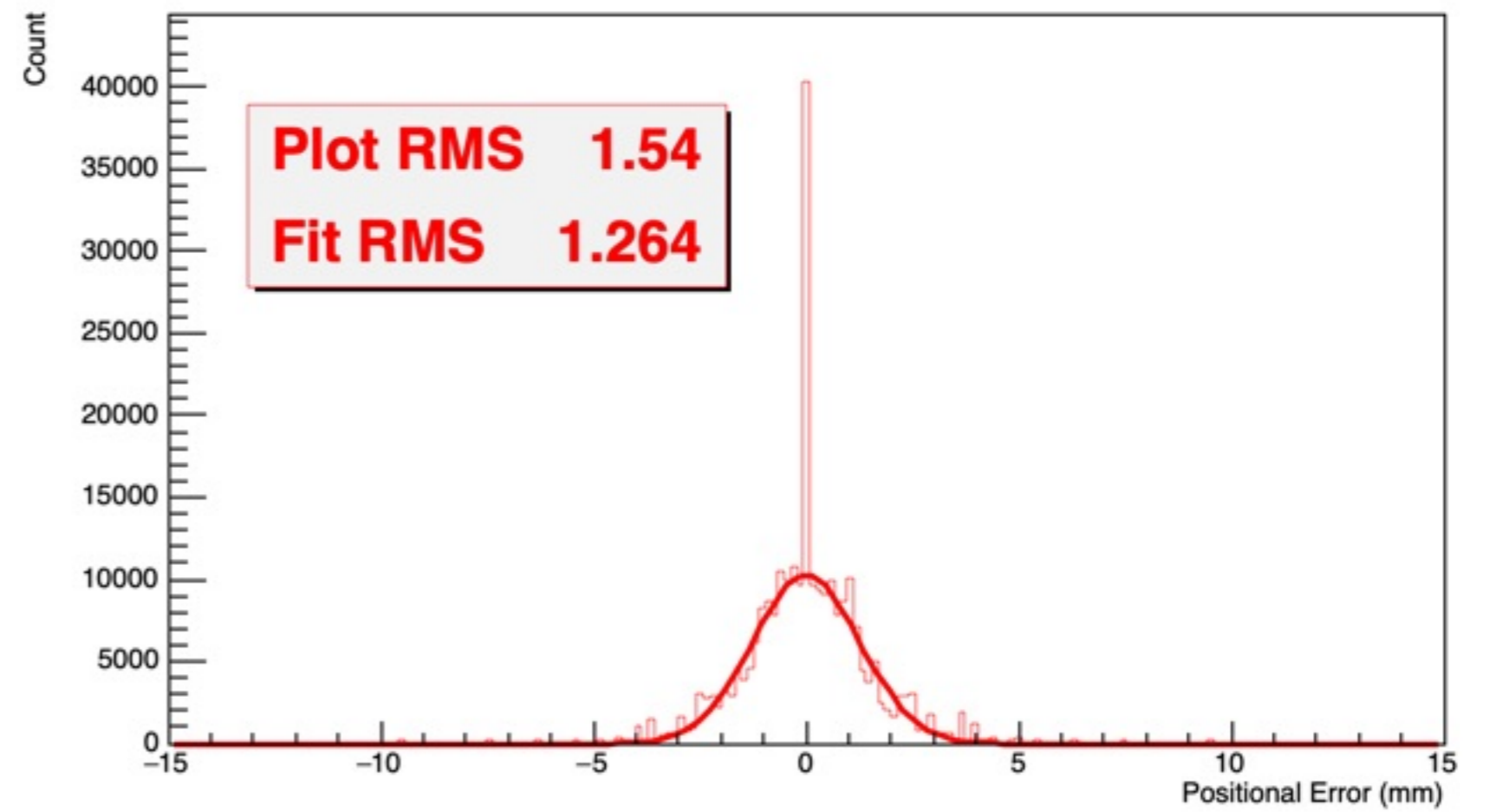
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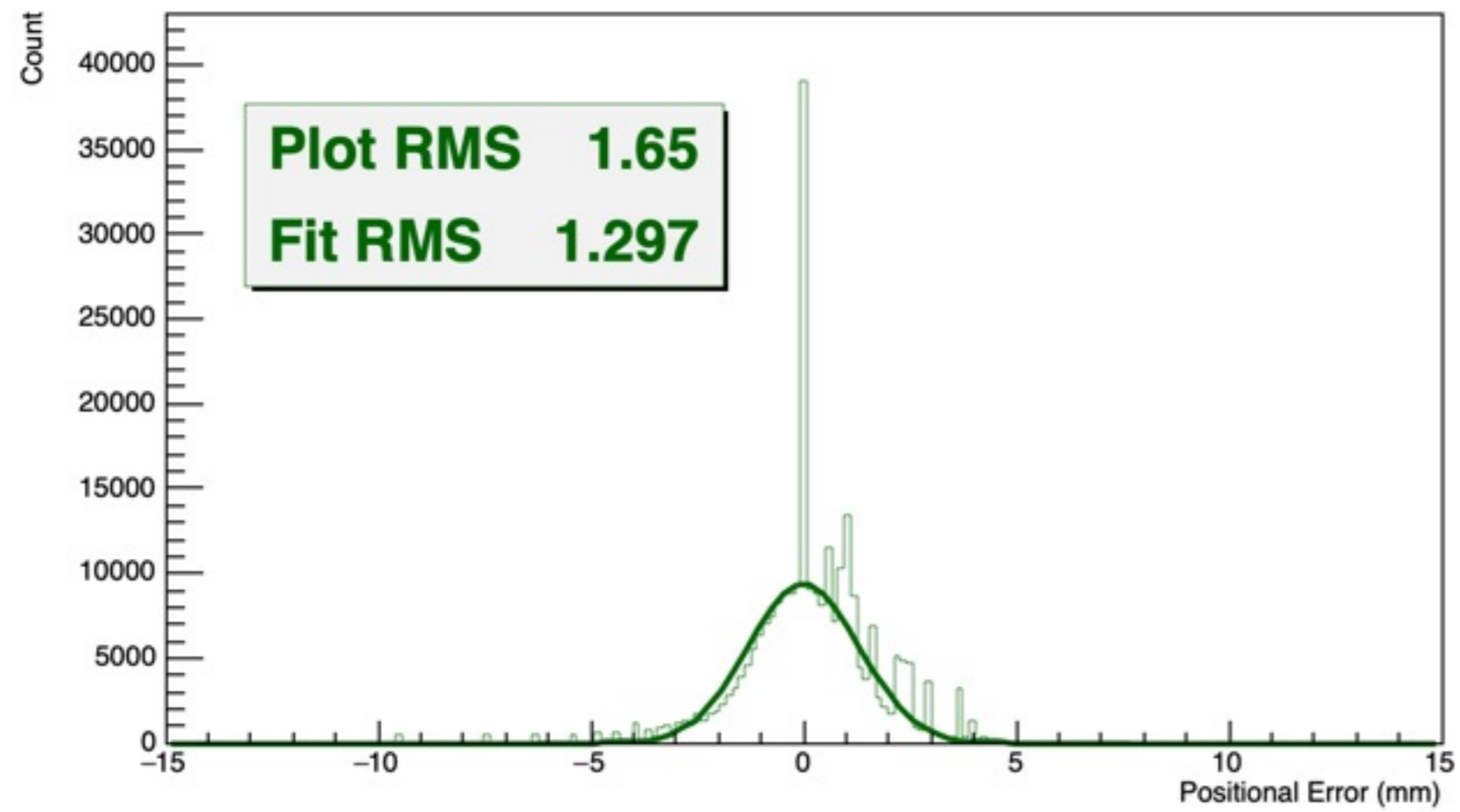
Positional Error - 85 PE/cm Yield, Z-Plane X



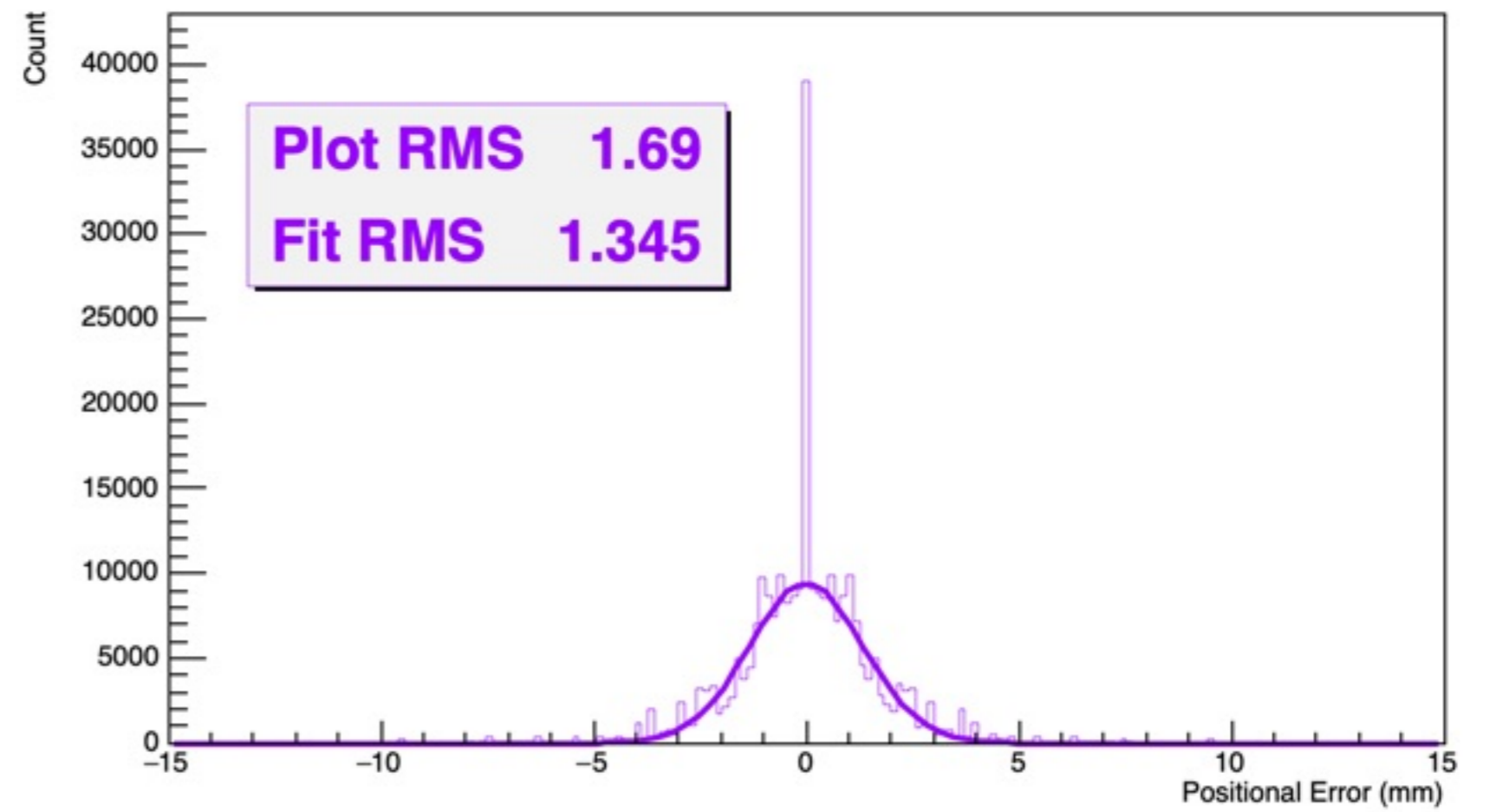
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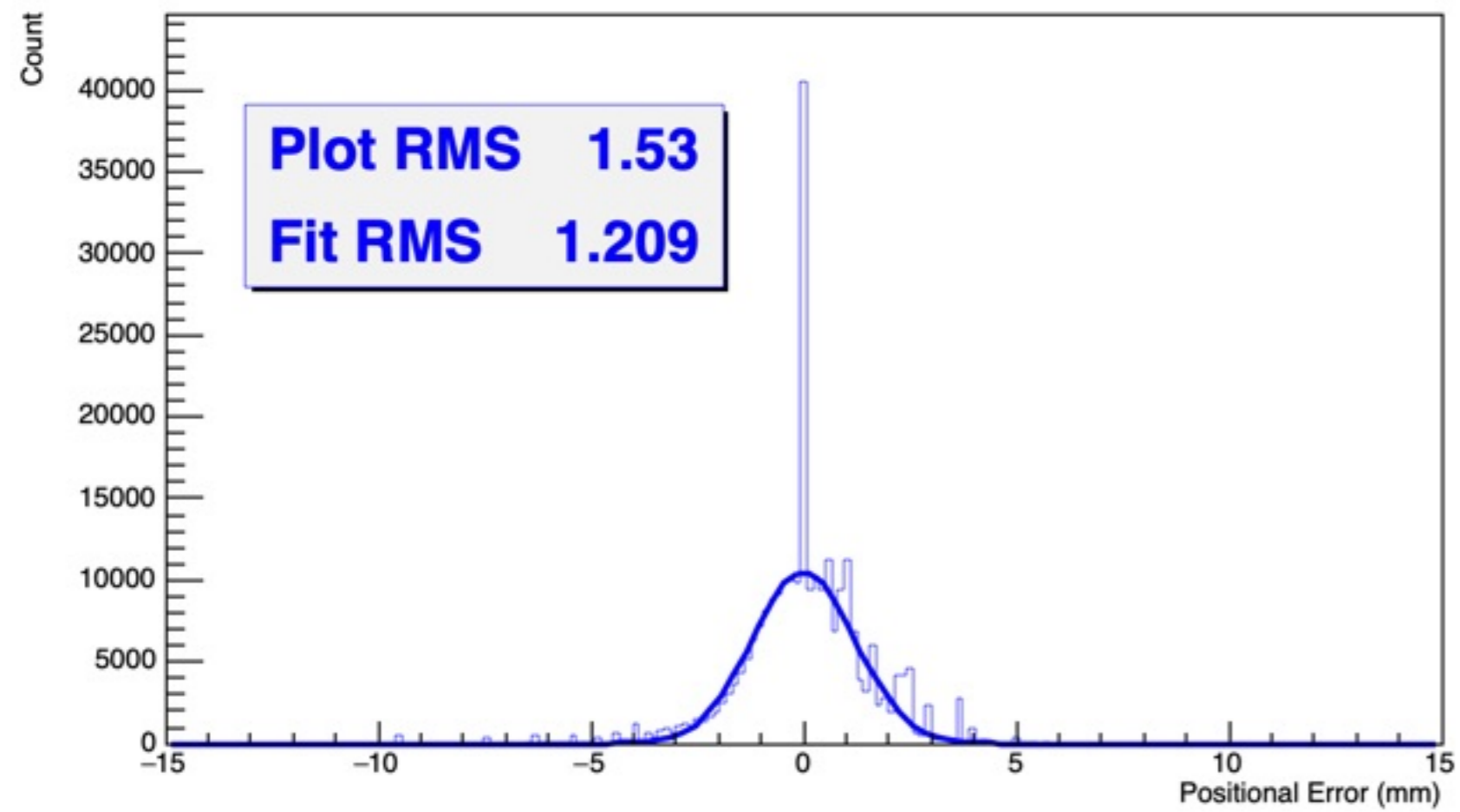
Y-Plane X



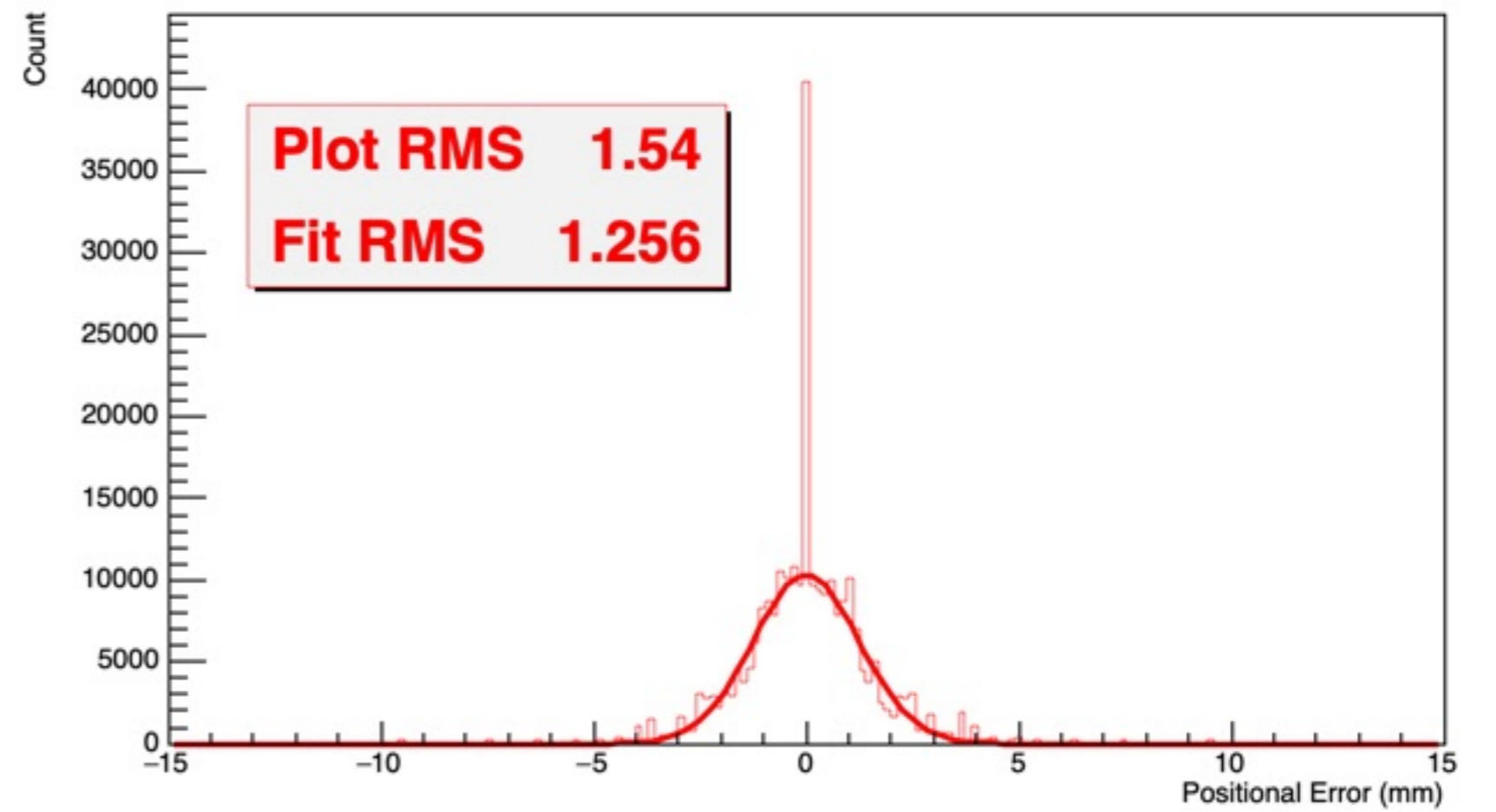
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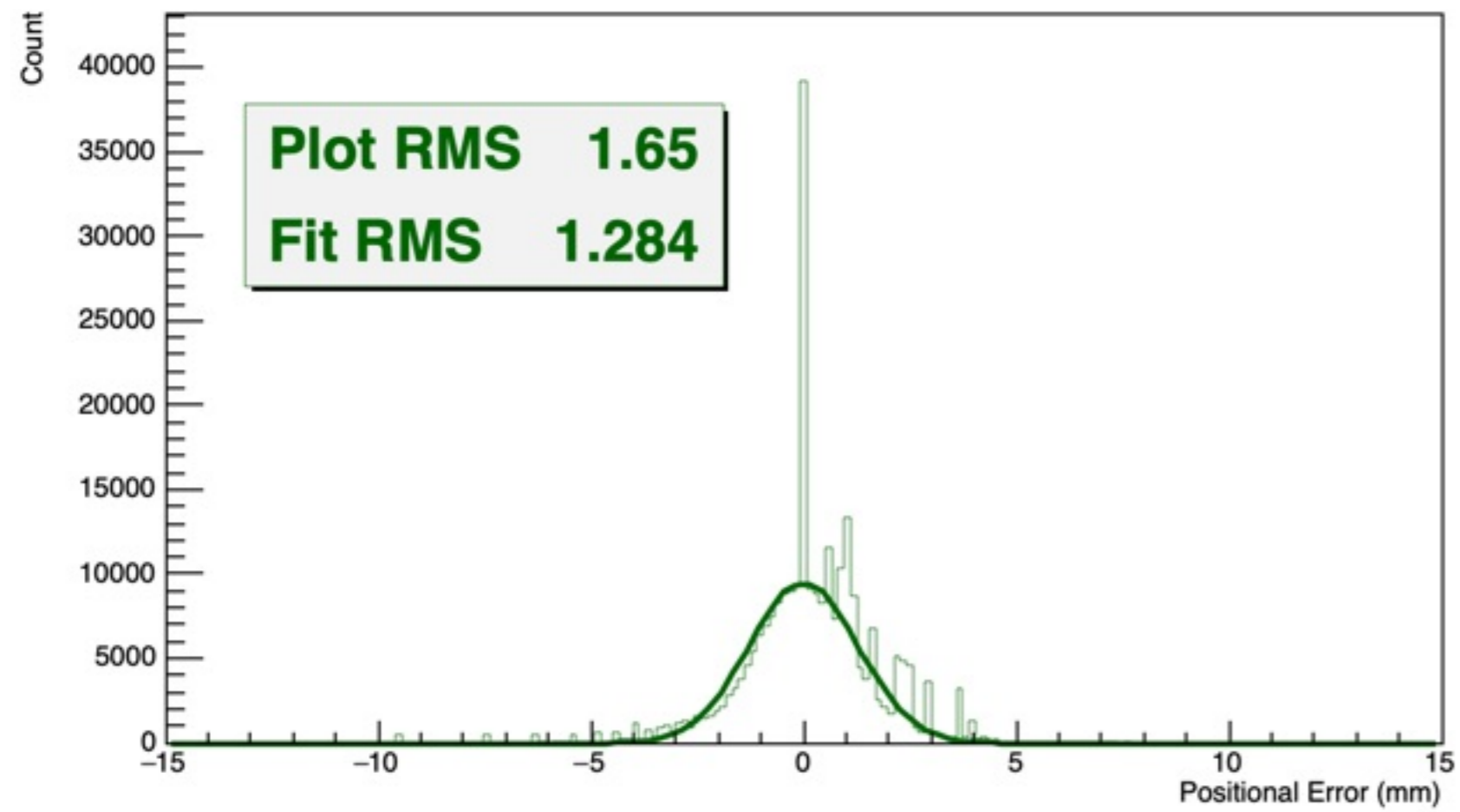
Positional Error - 90 PE/cm Yield, Z-Plane X



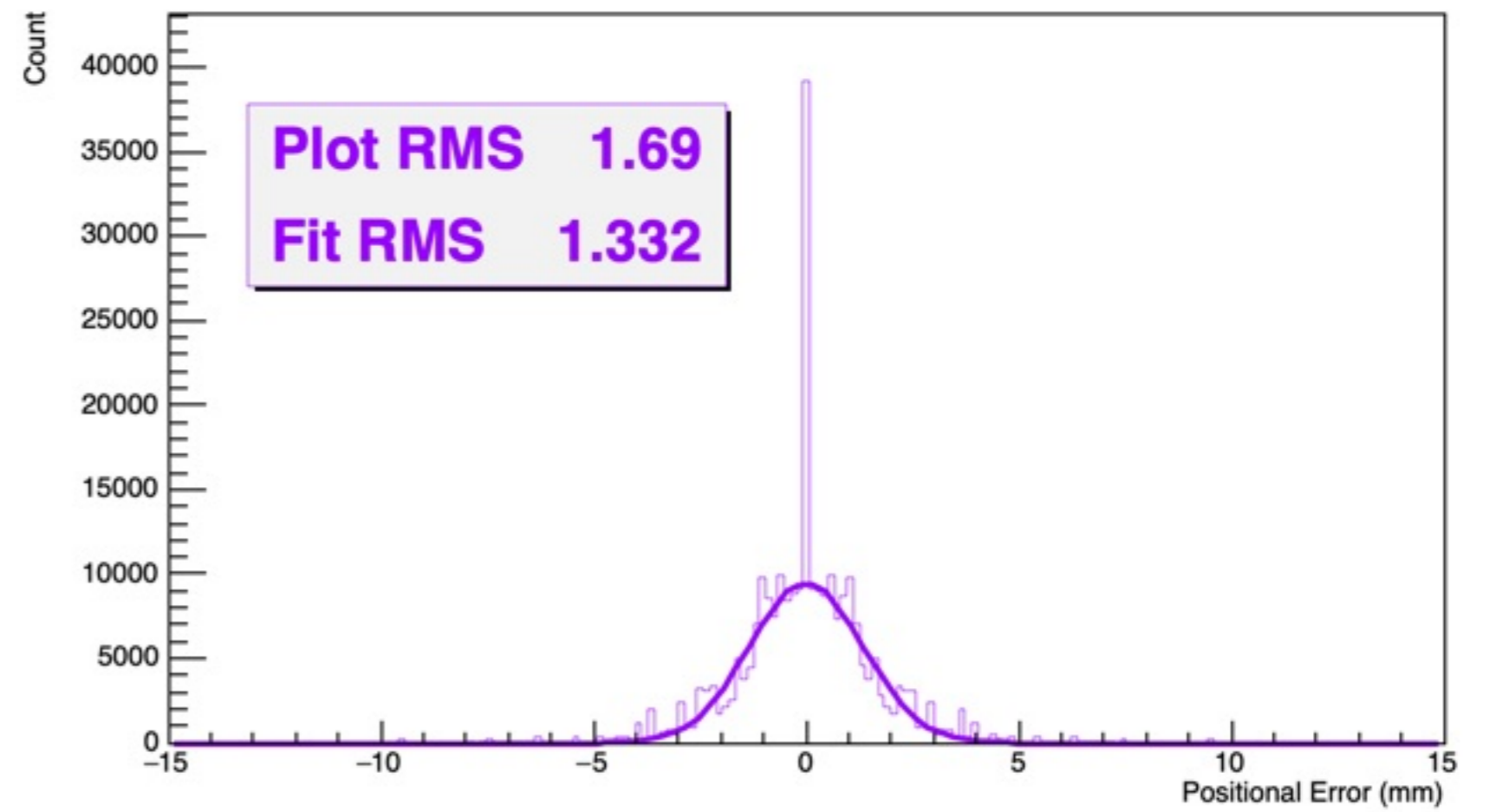
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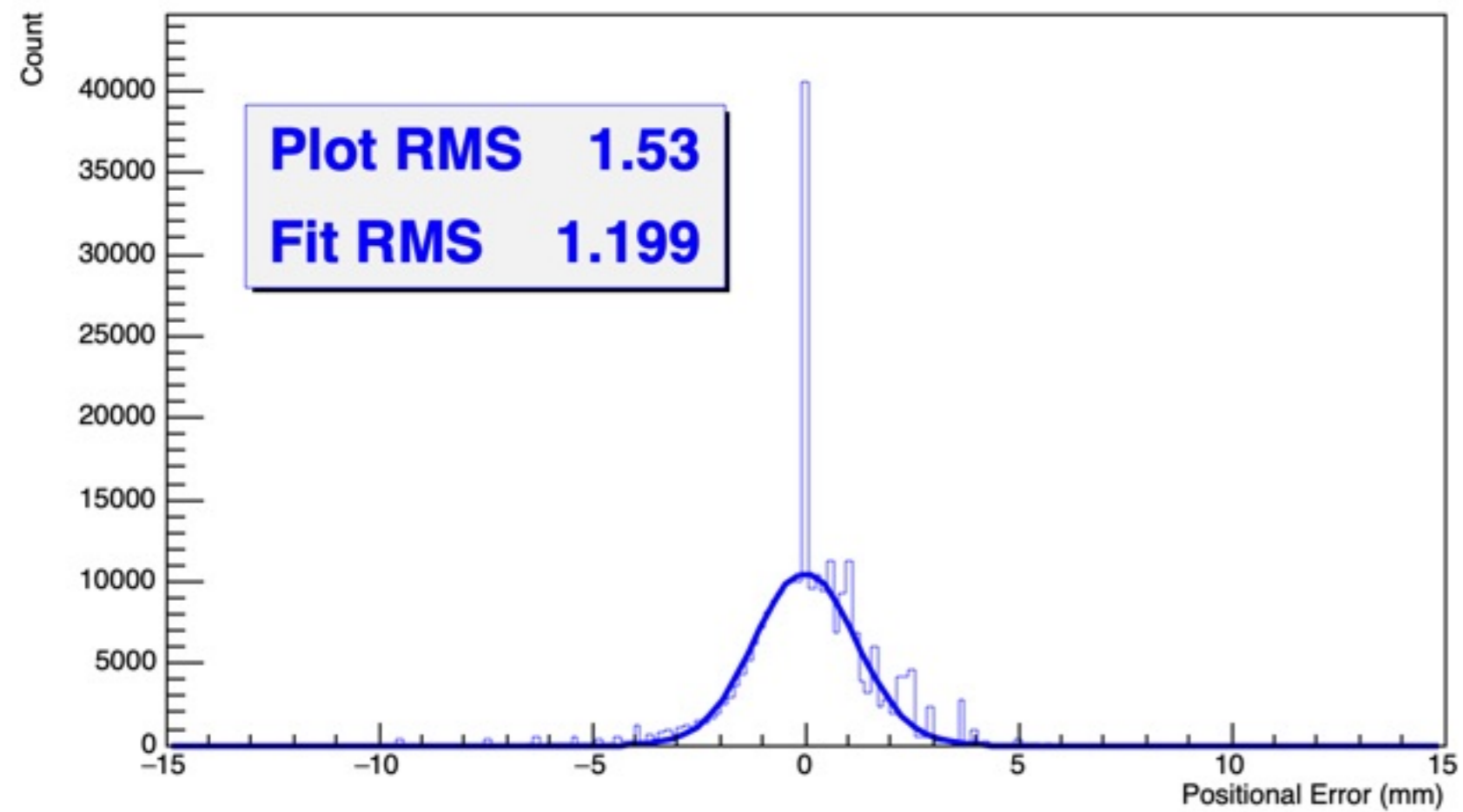
Y-Plane X



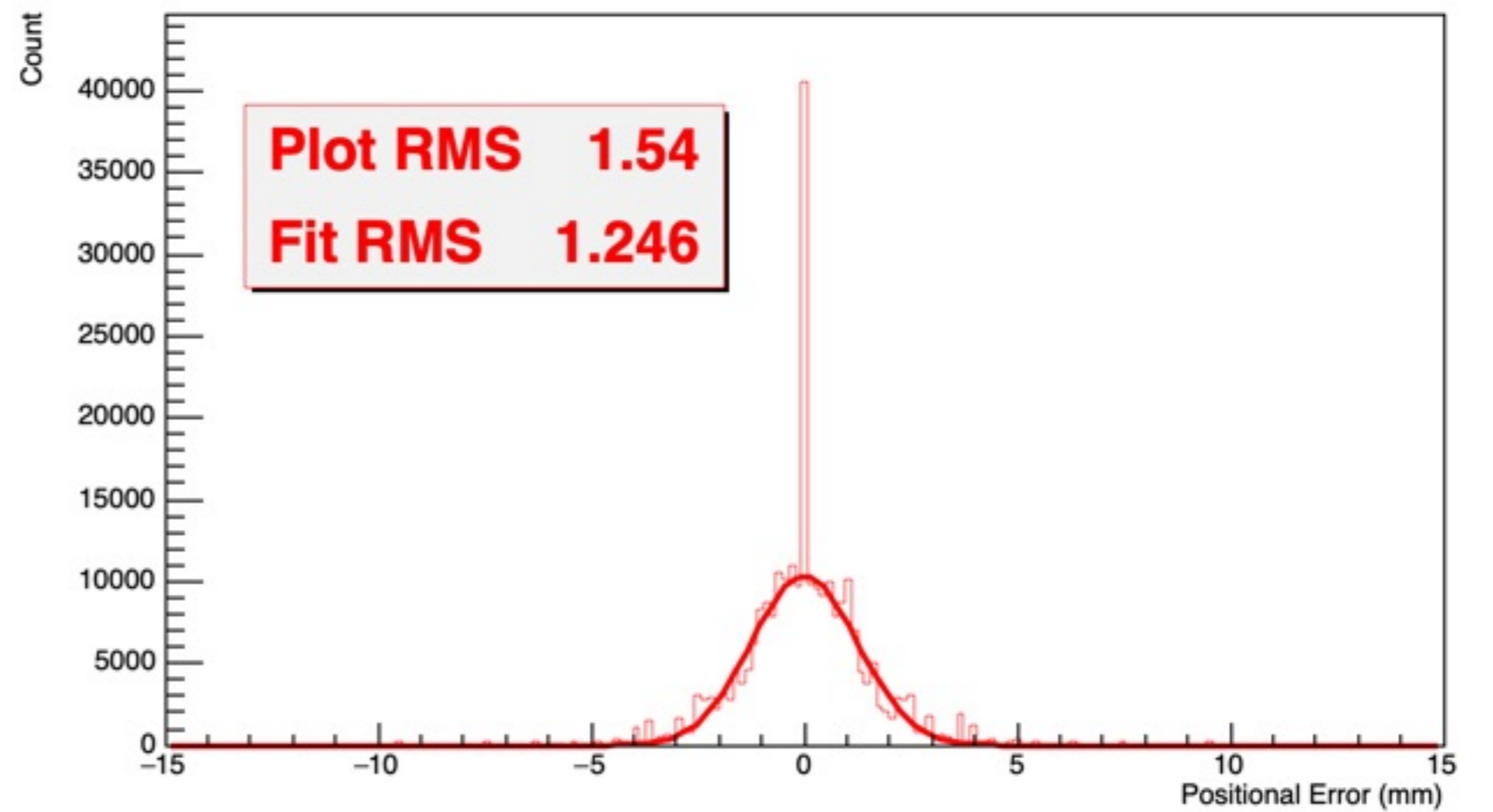
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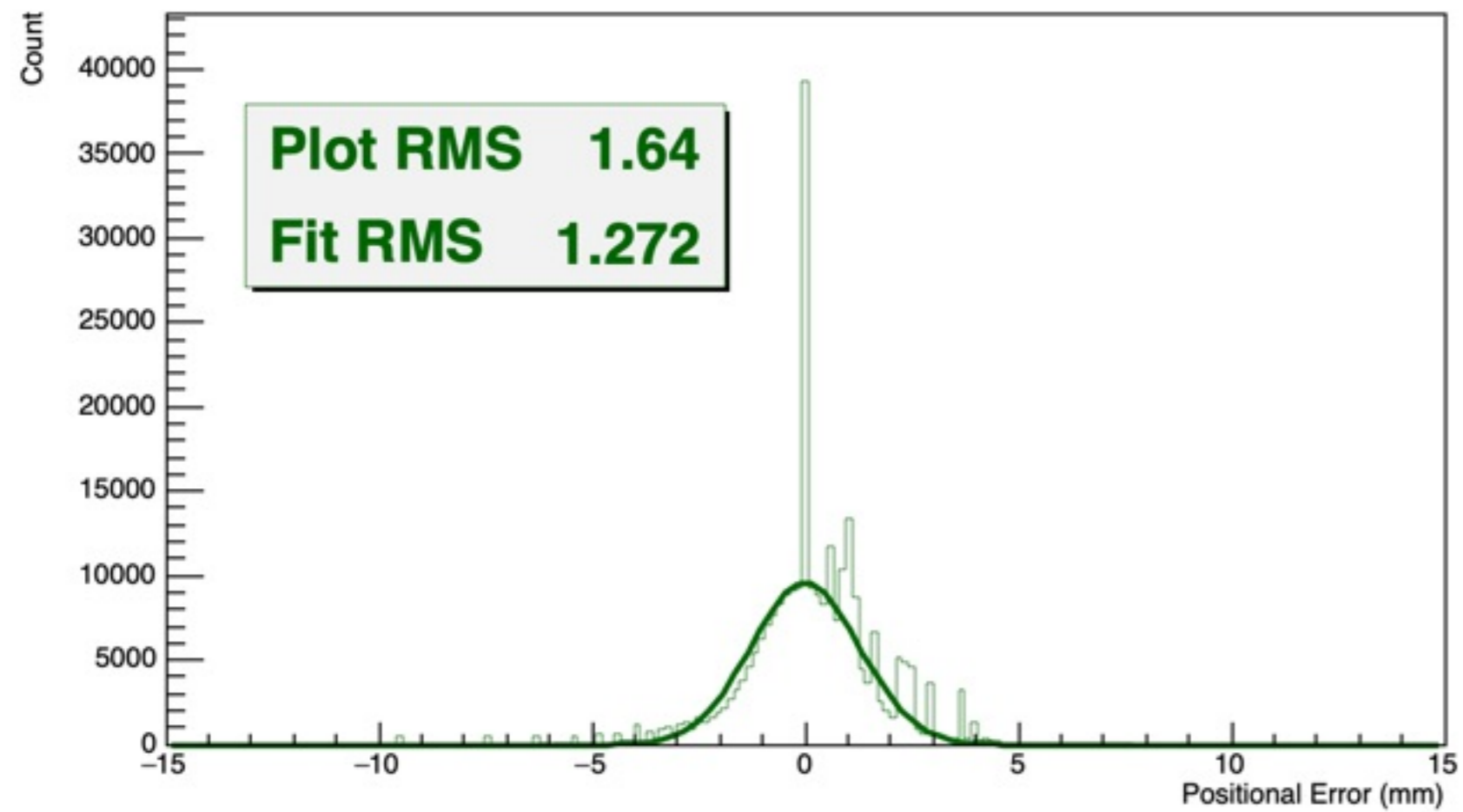
Positional Error - 95 PE/cm Yield, Z-Plane X



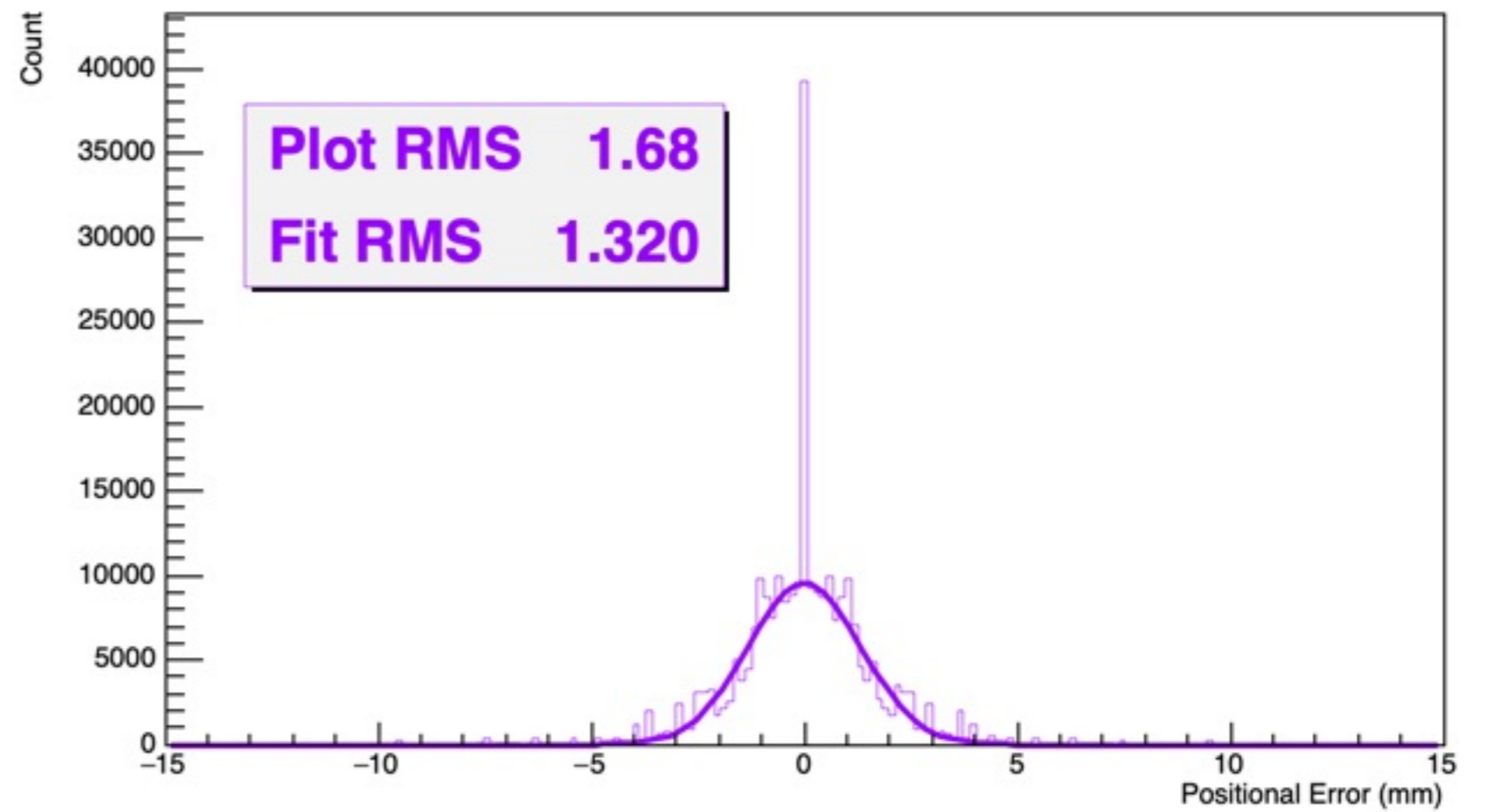
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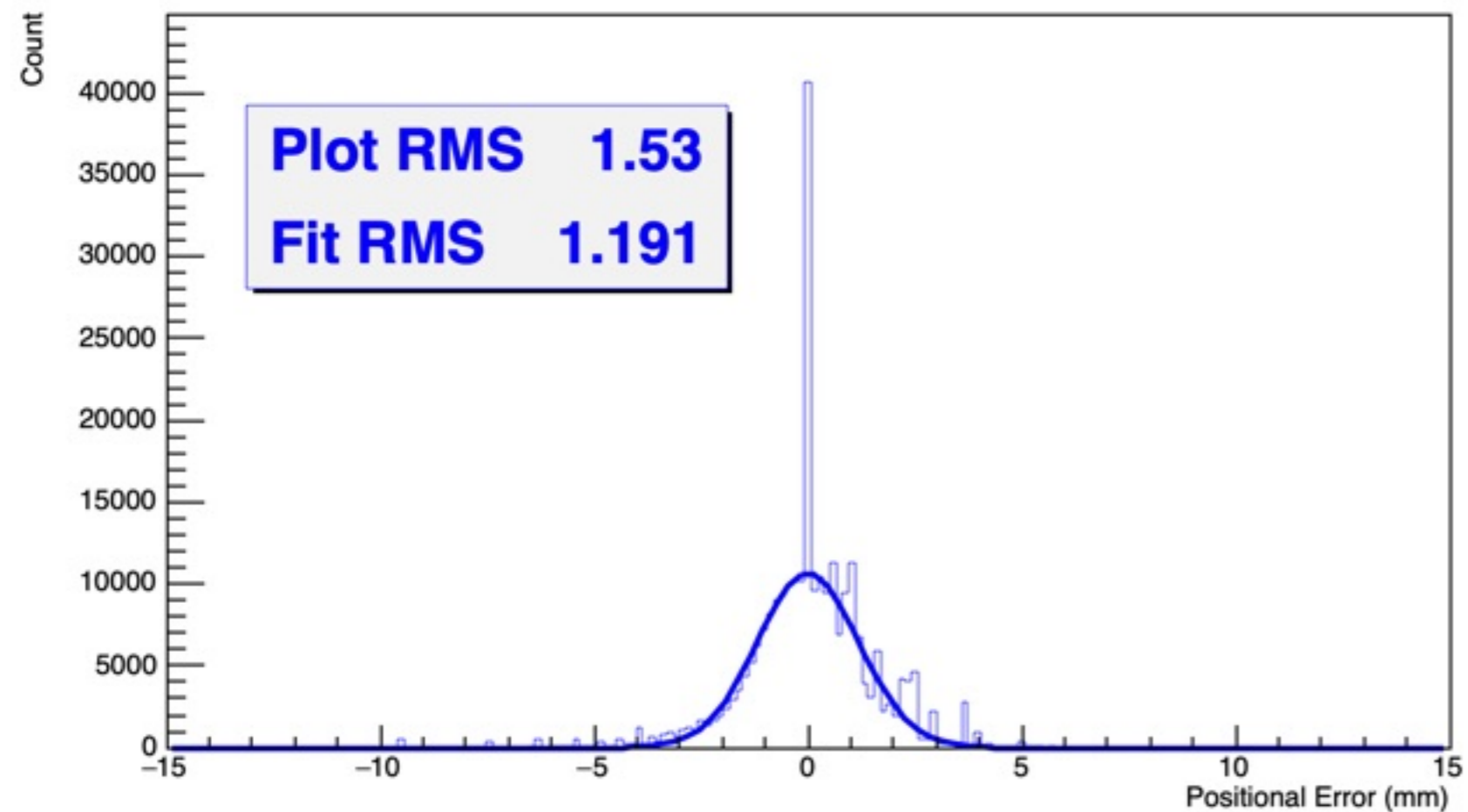
Y-Plane X



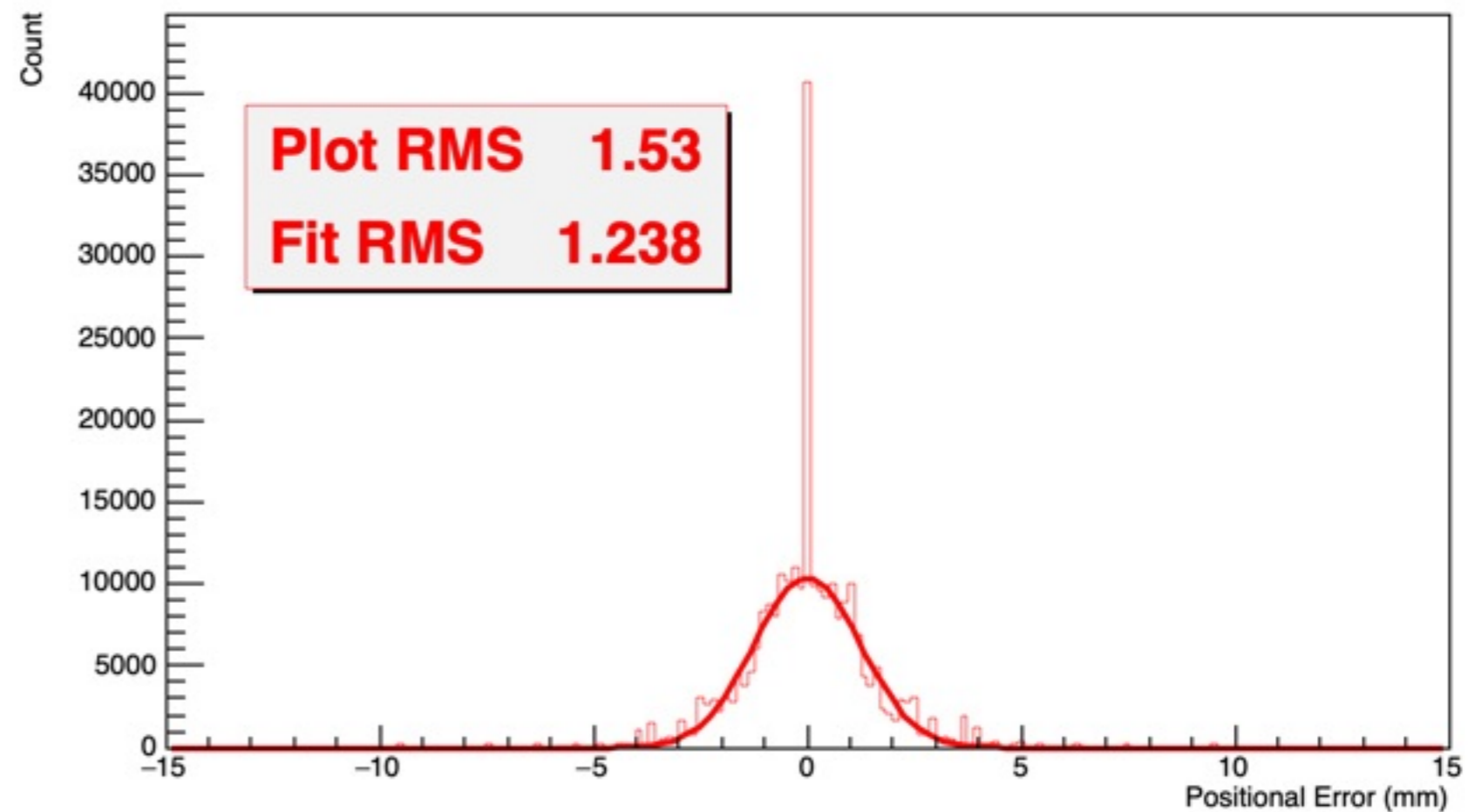
Y



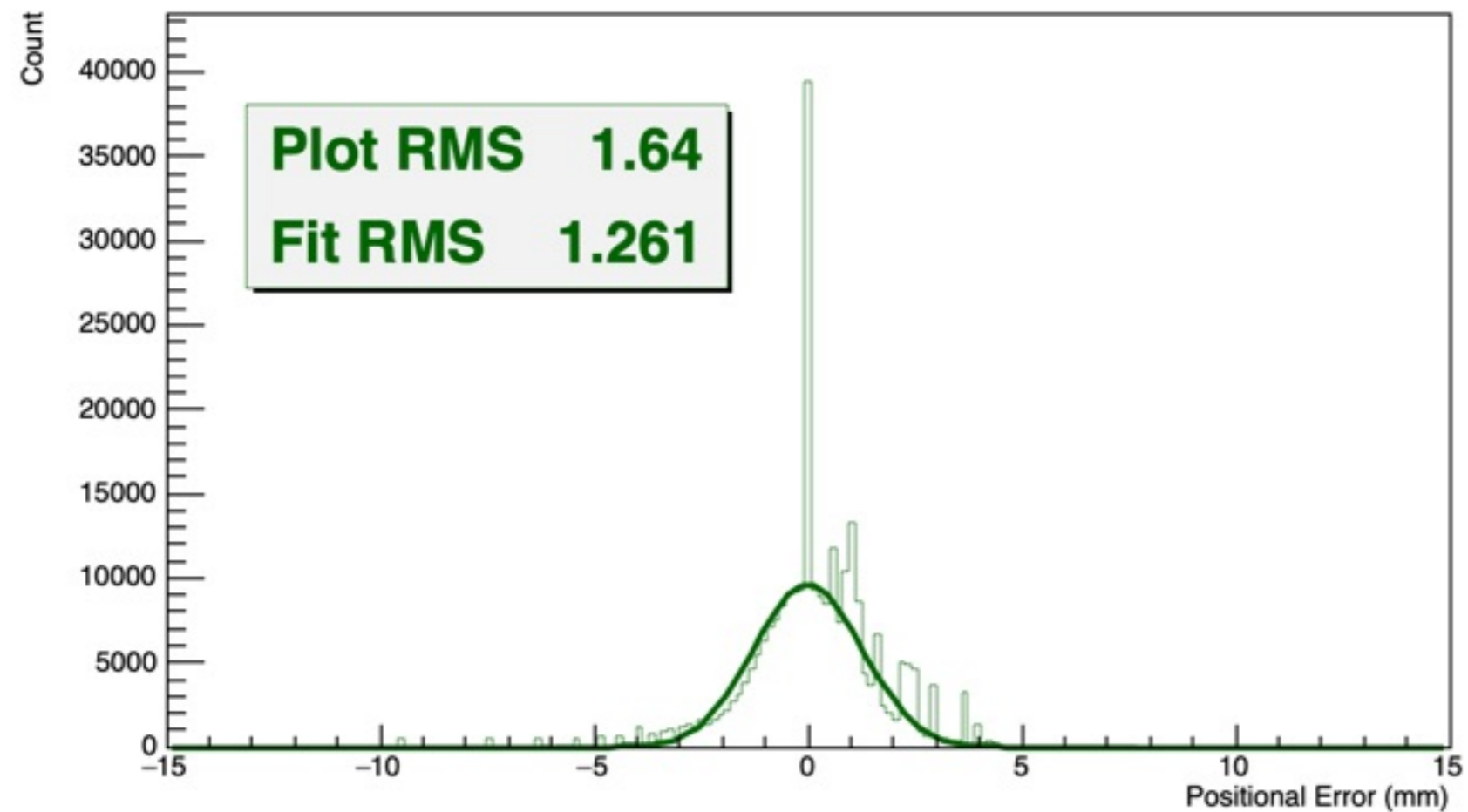
Positional Error - 100 PE/cm Yield, Z-Plane X



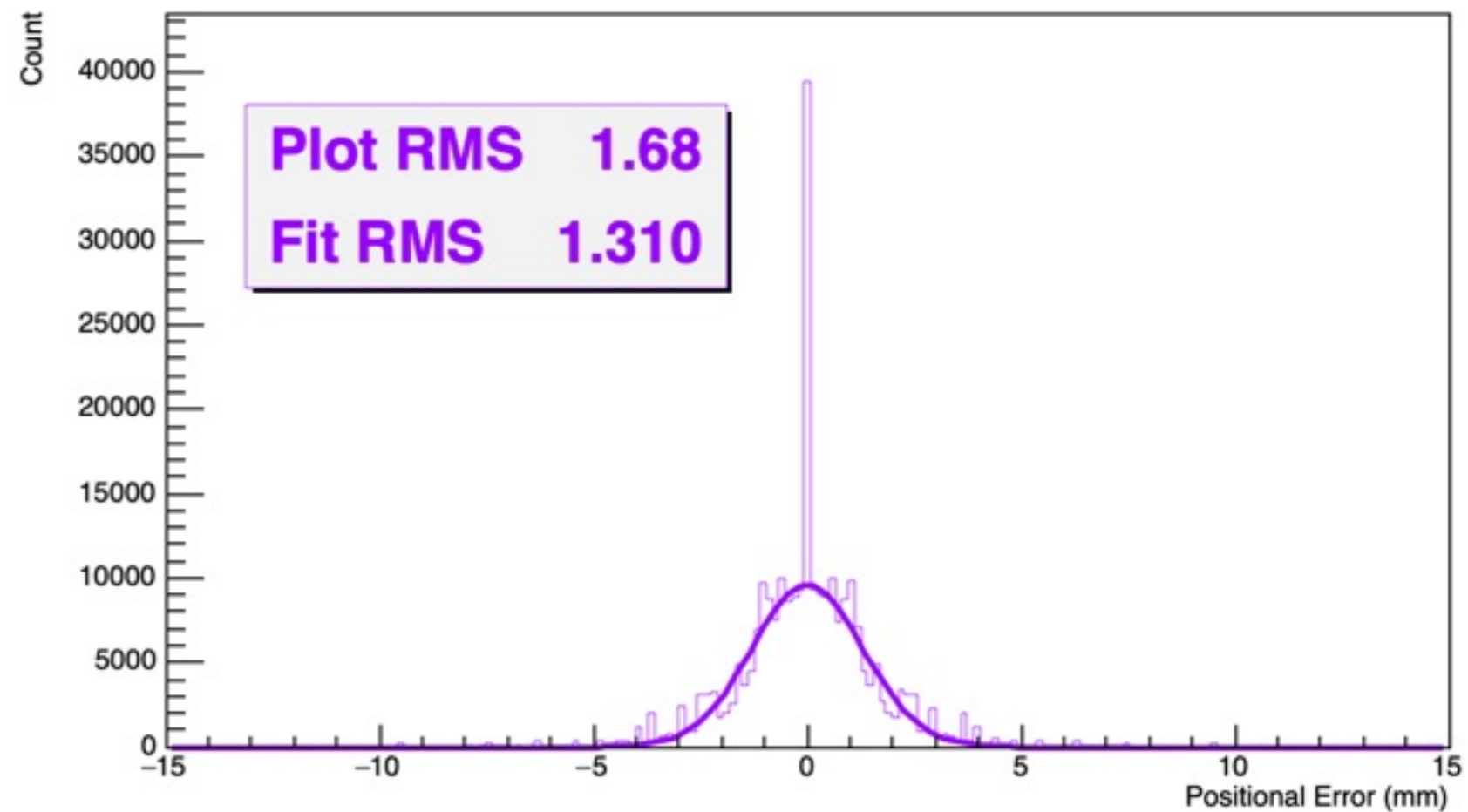
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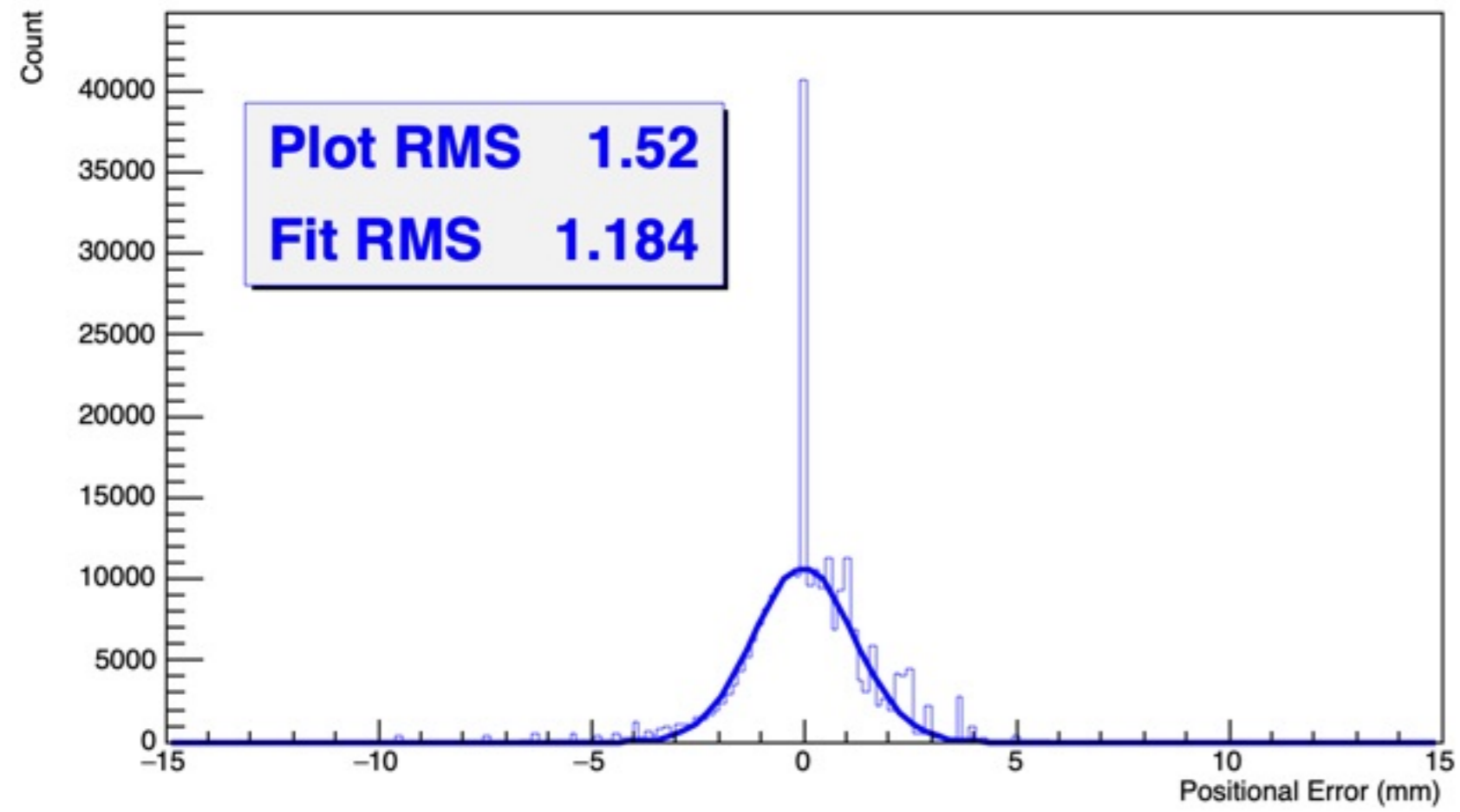
Y-Plane X



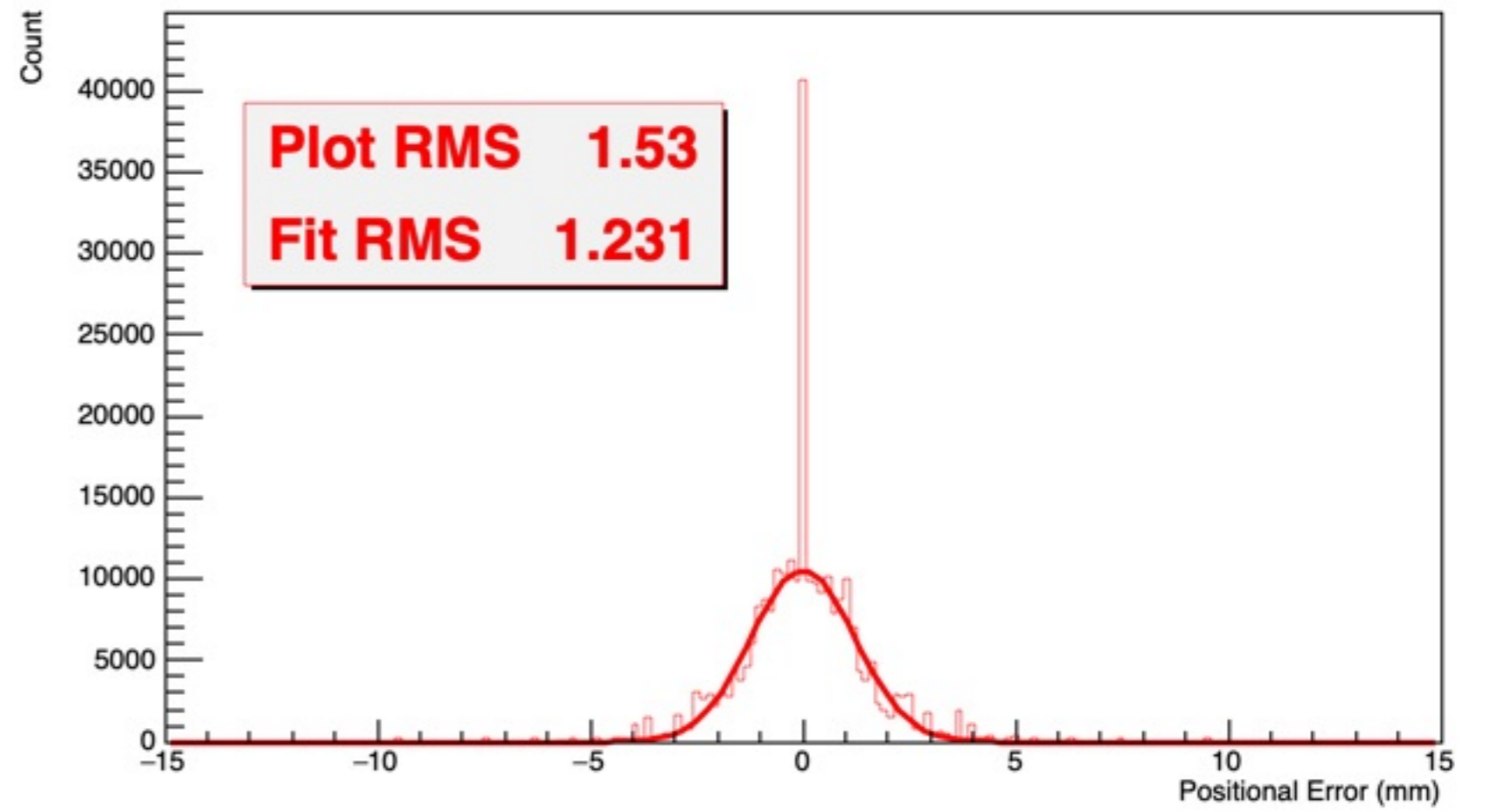
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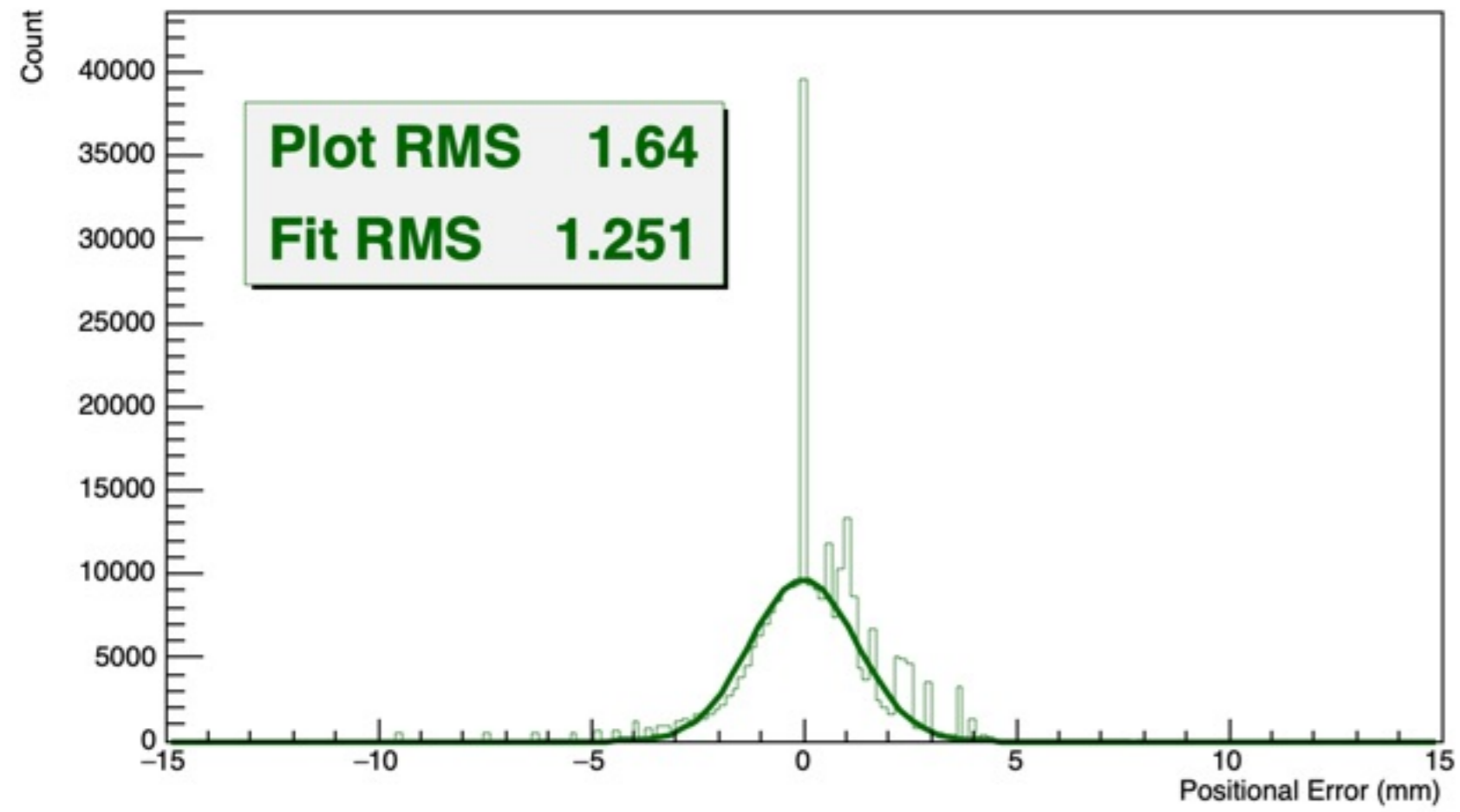
Positional Error - 105 PE/cm Yield, Z-Plane X



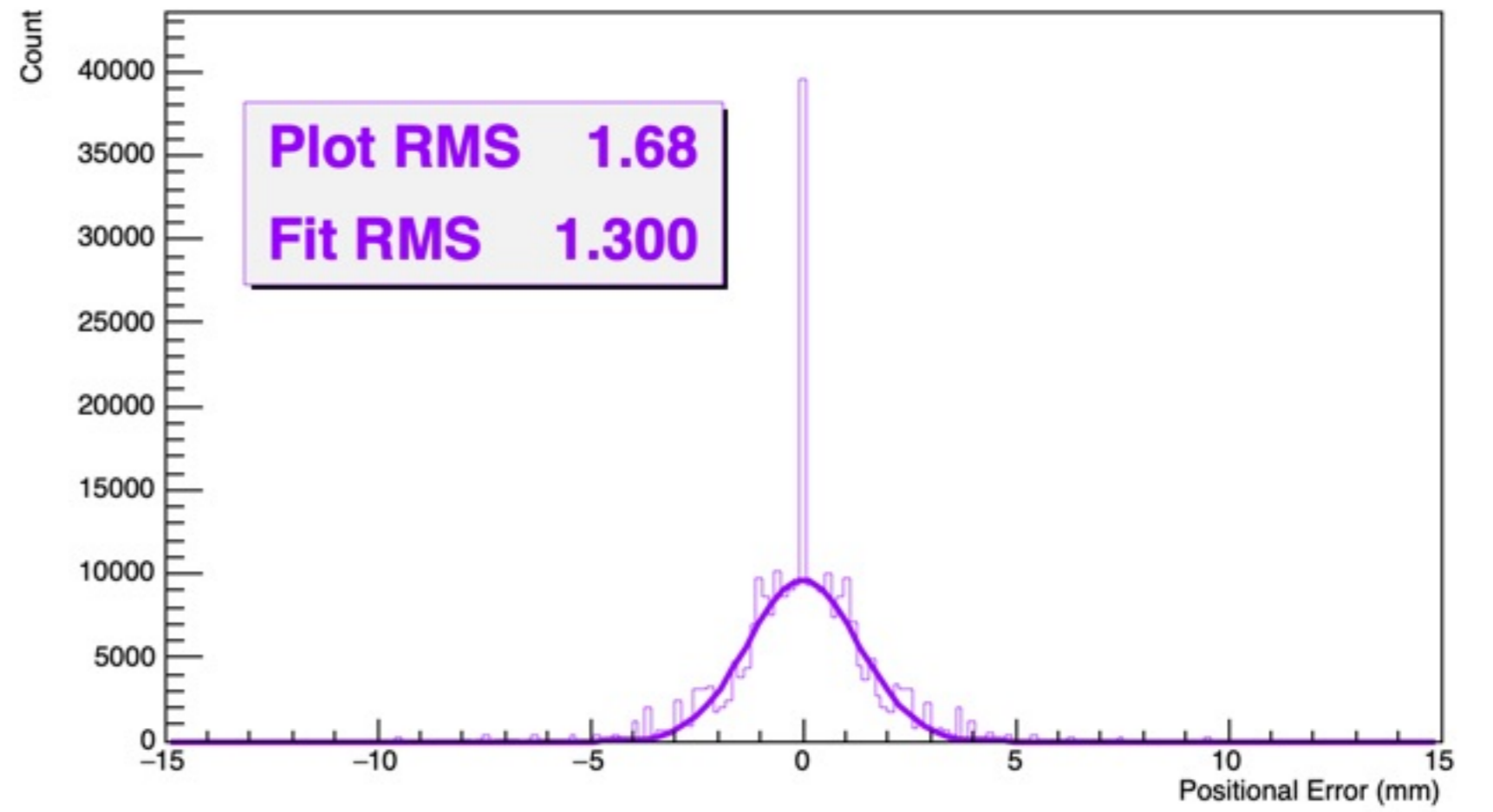
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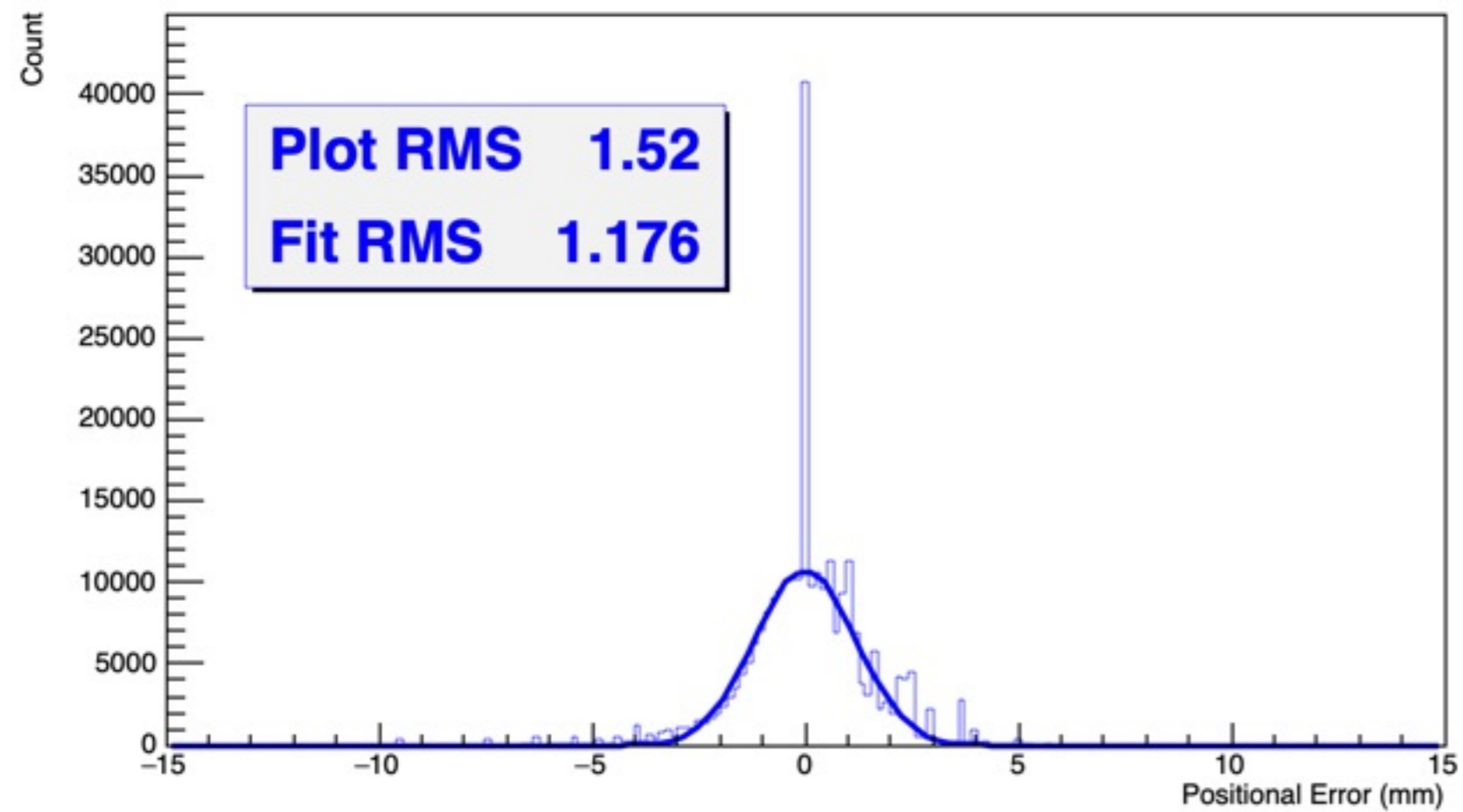
Y-Plane X



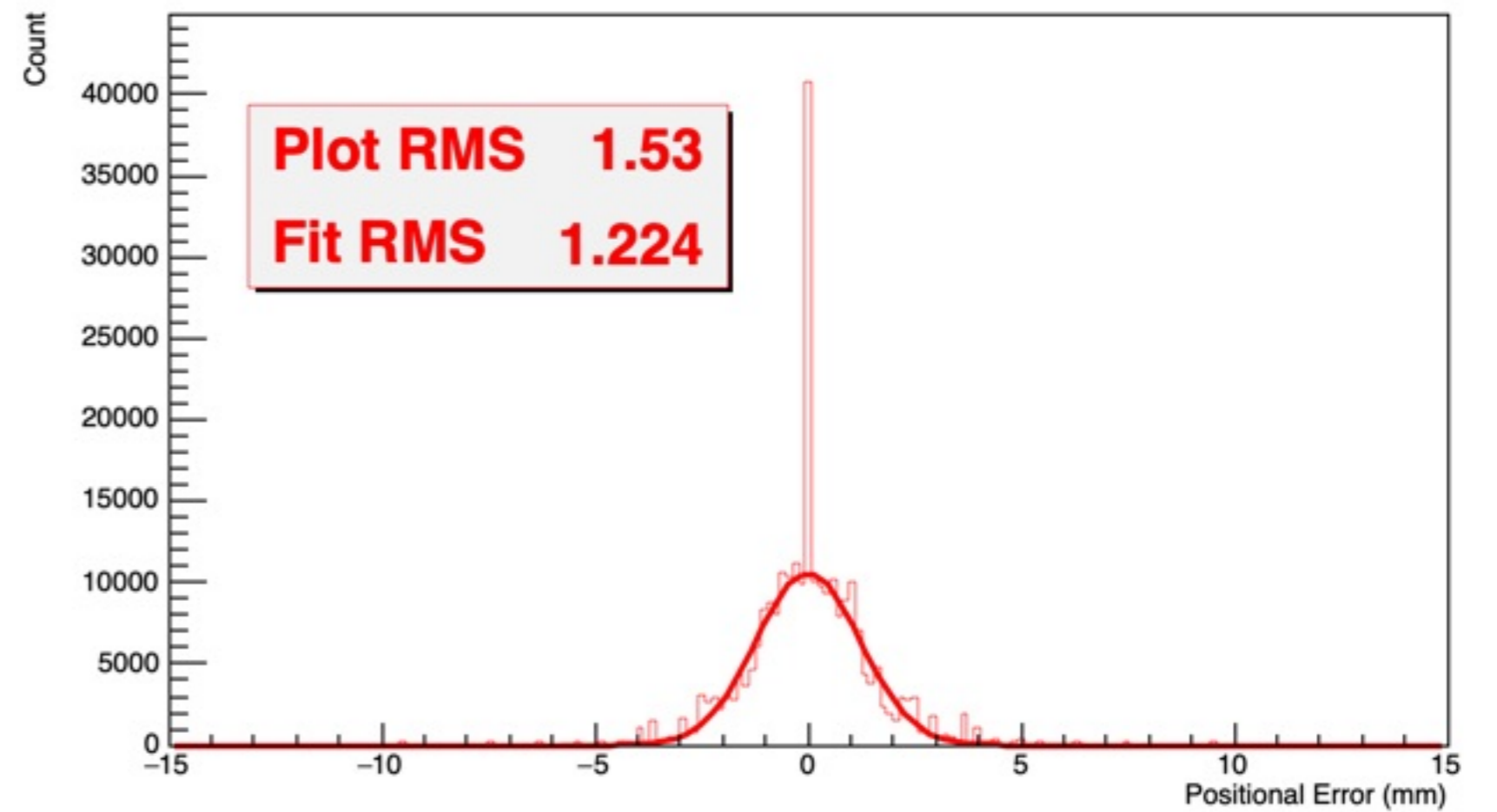
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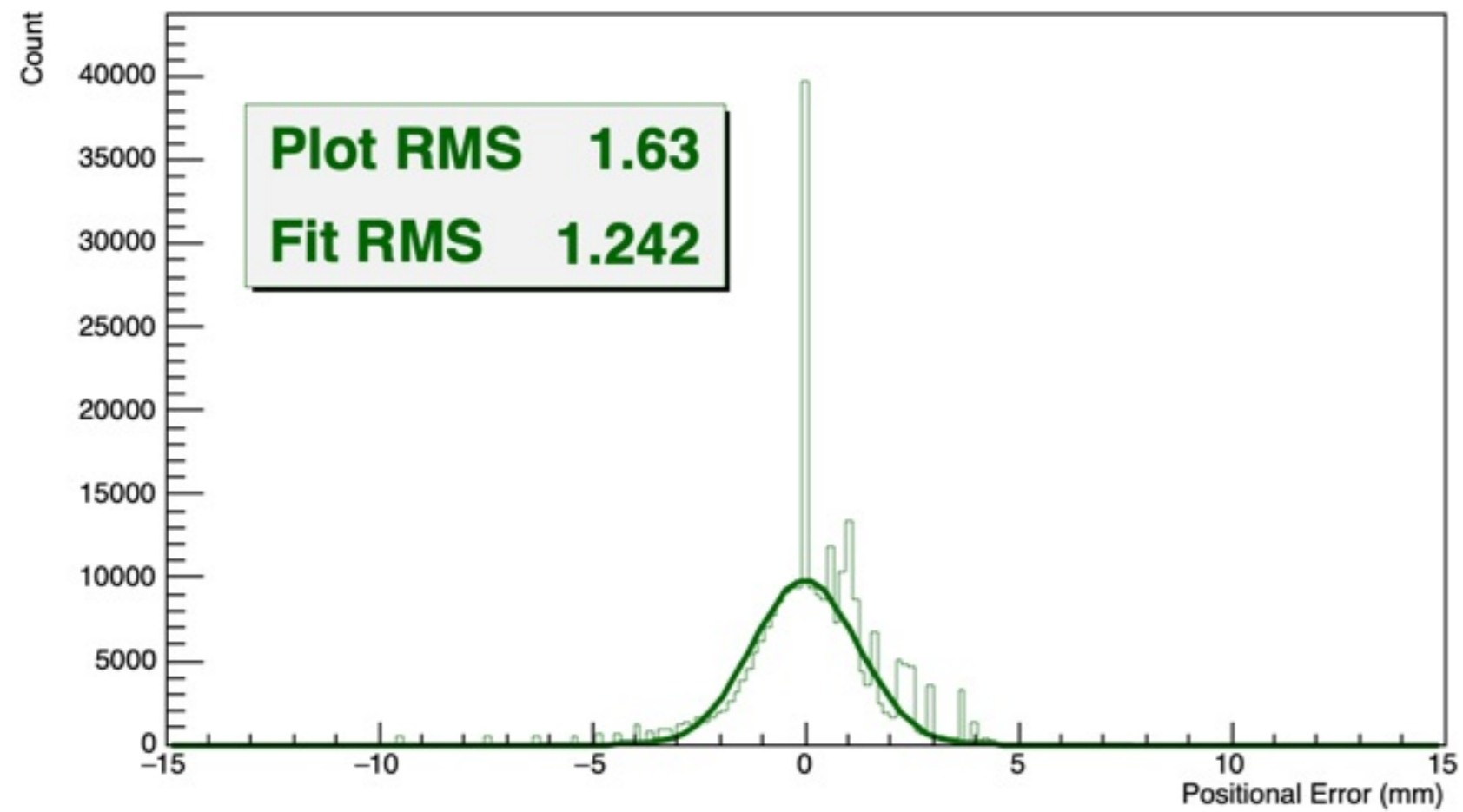
Positional Error - 110 PE/cm Yield, Z-Plane X



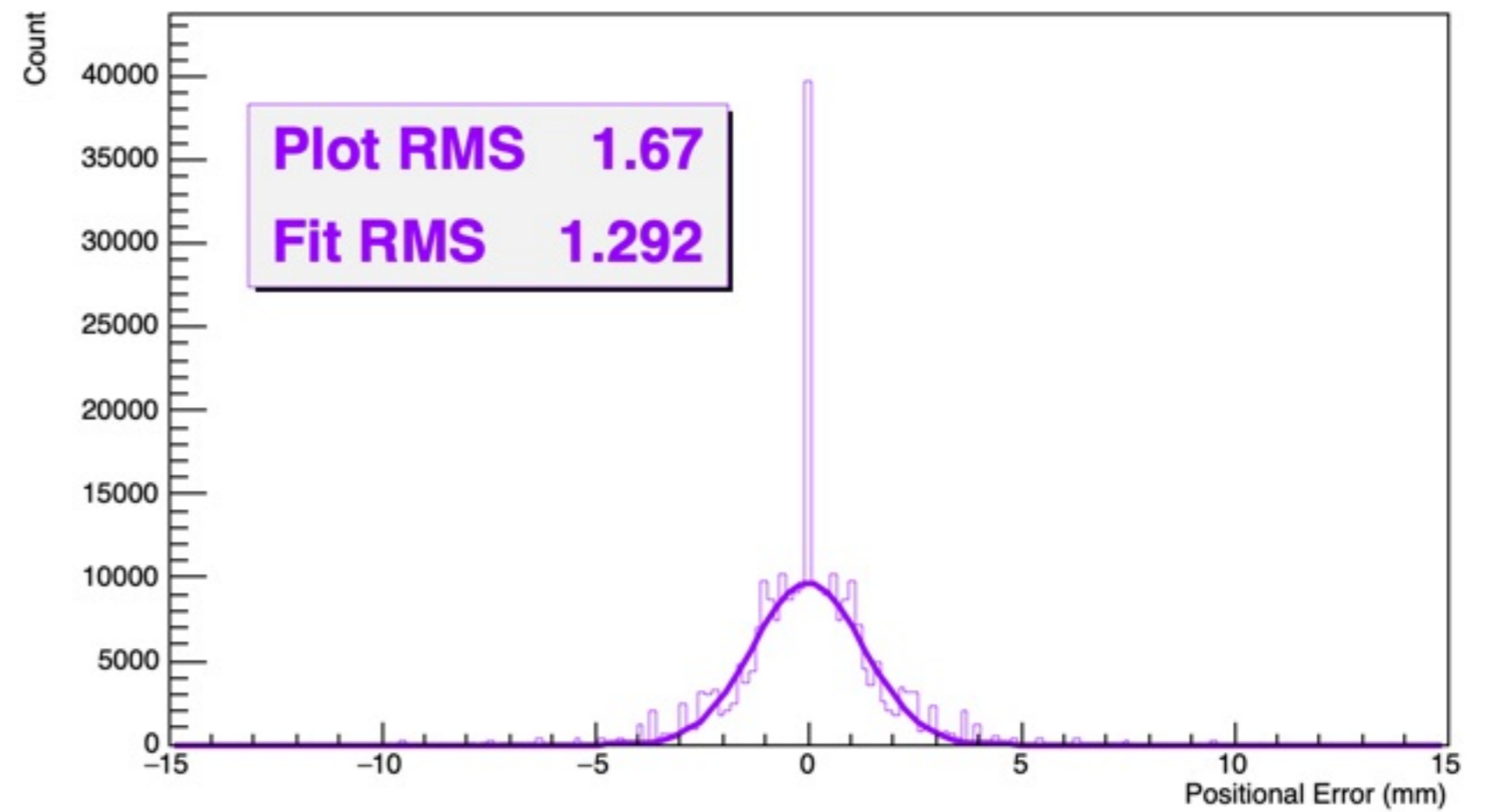
Z



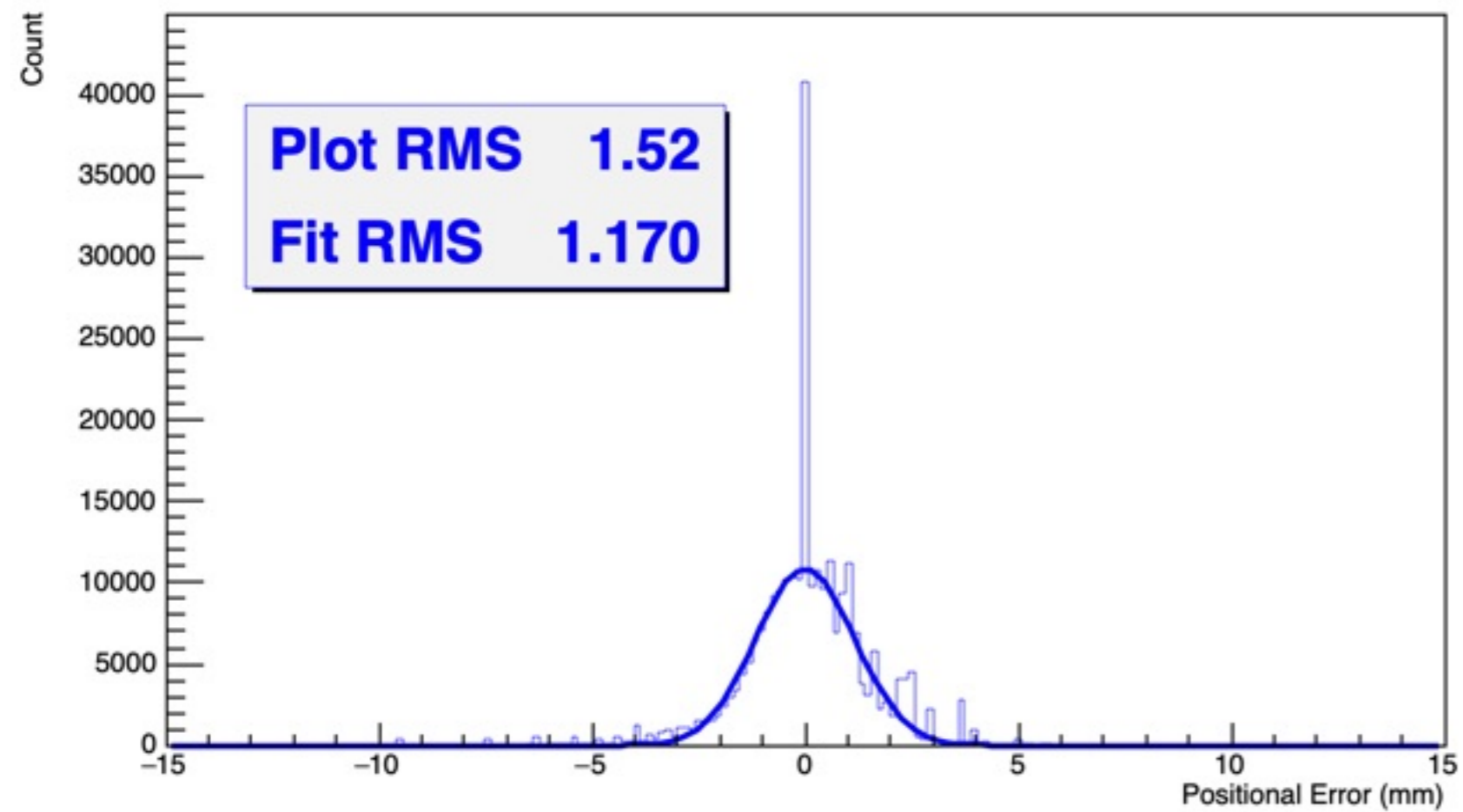
Y-Plane X



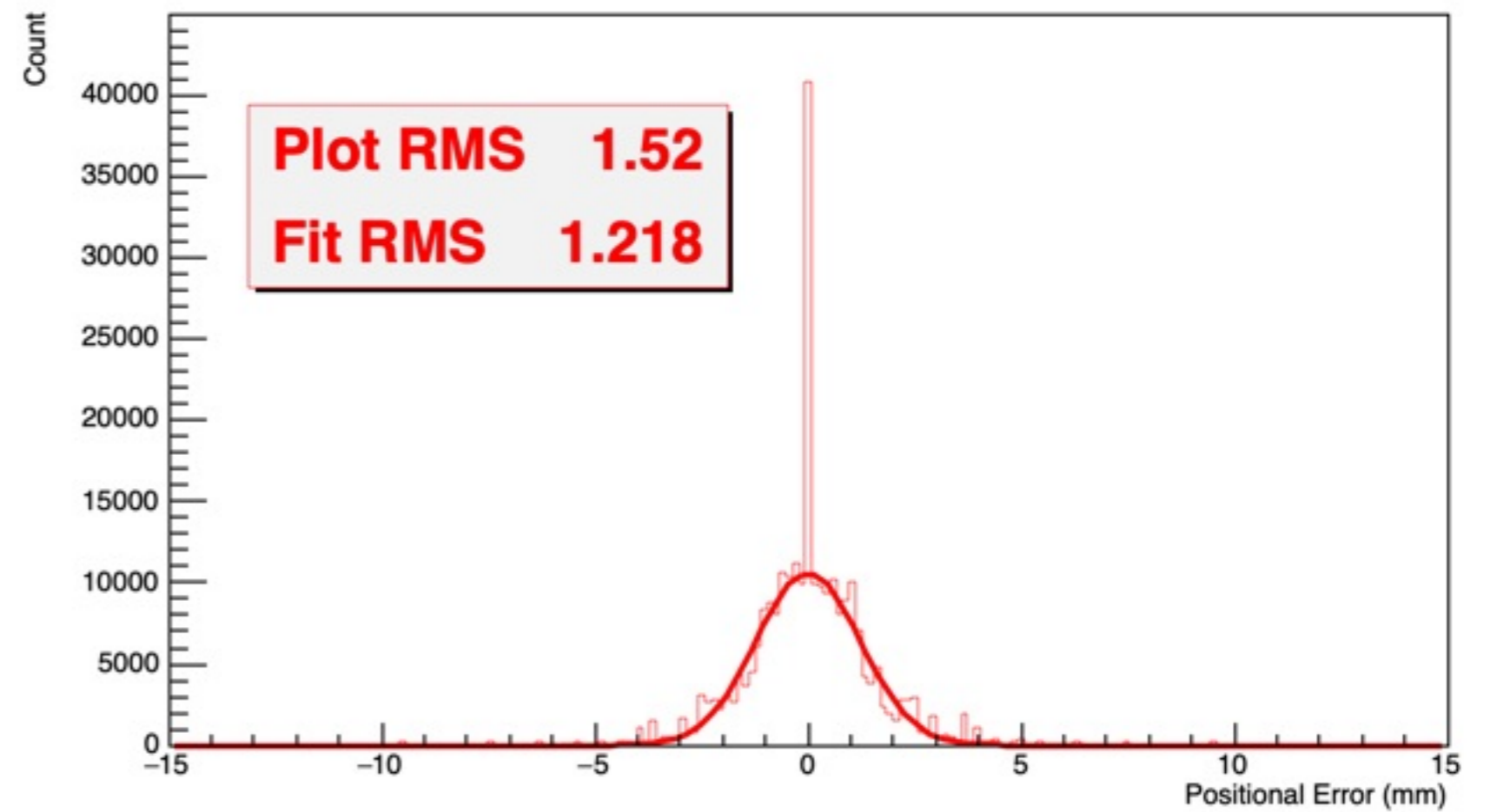
Y



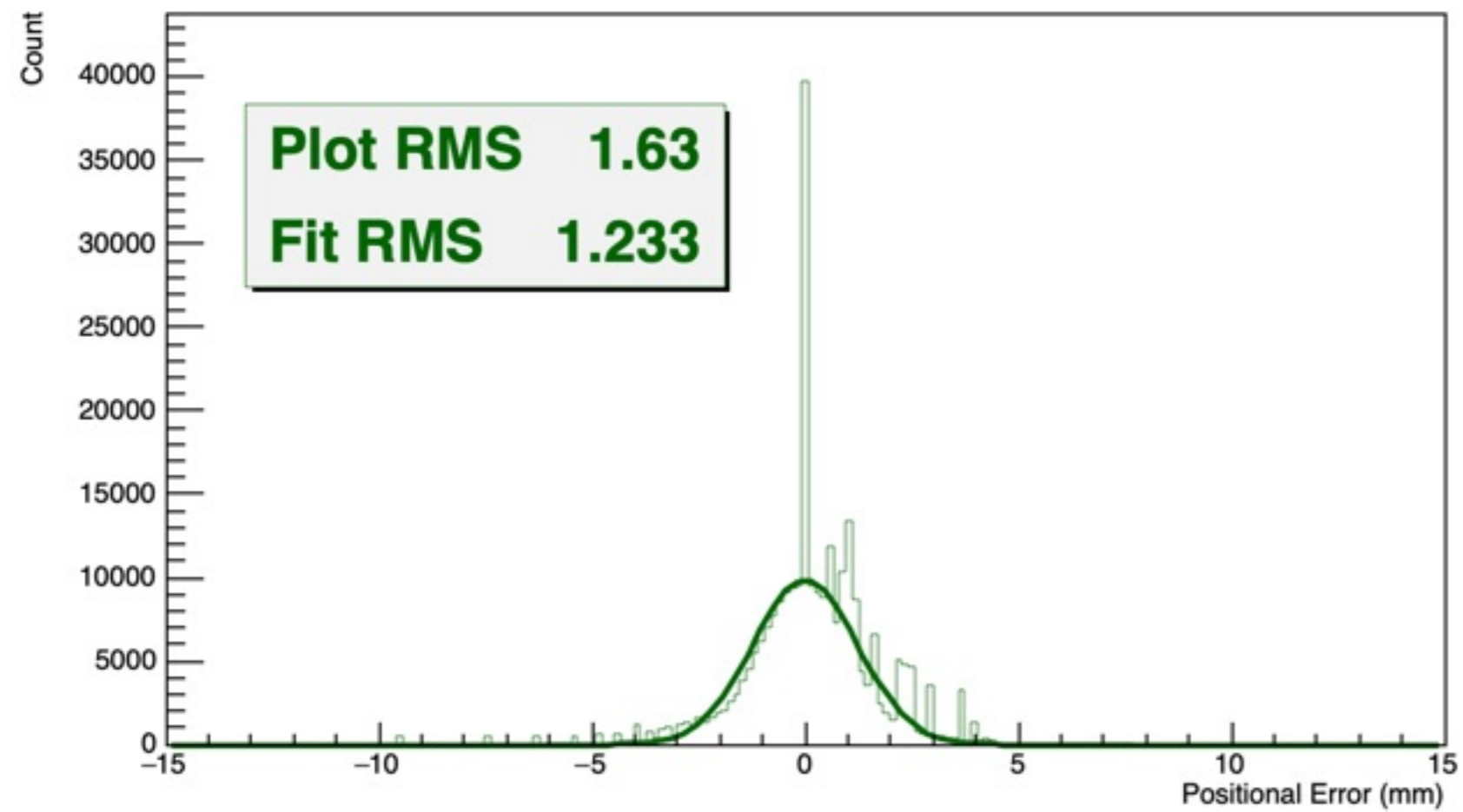
Positional Error - 115 PE/cm Yield, Z-Plane X



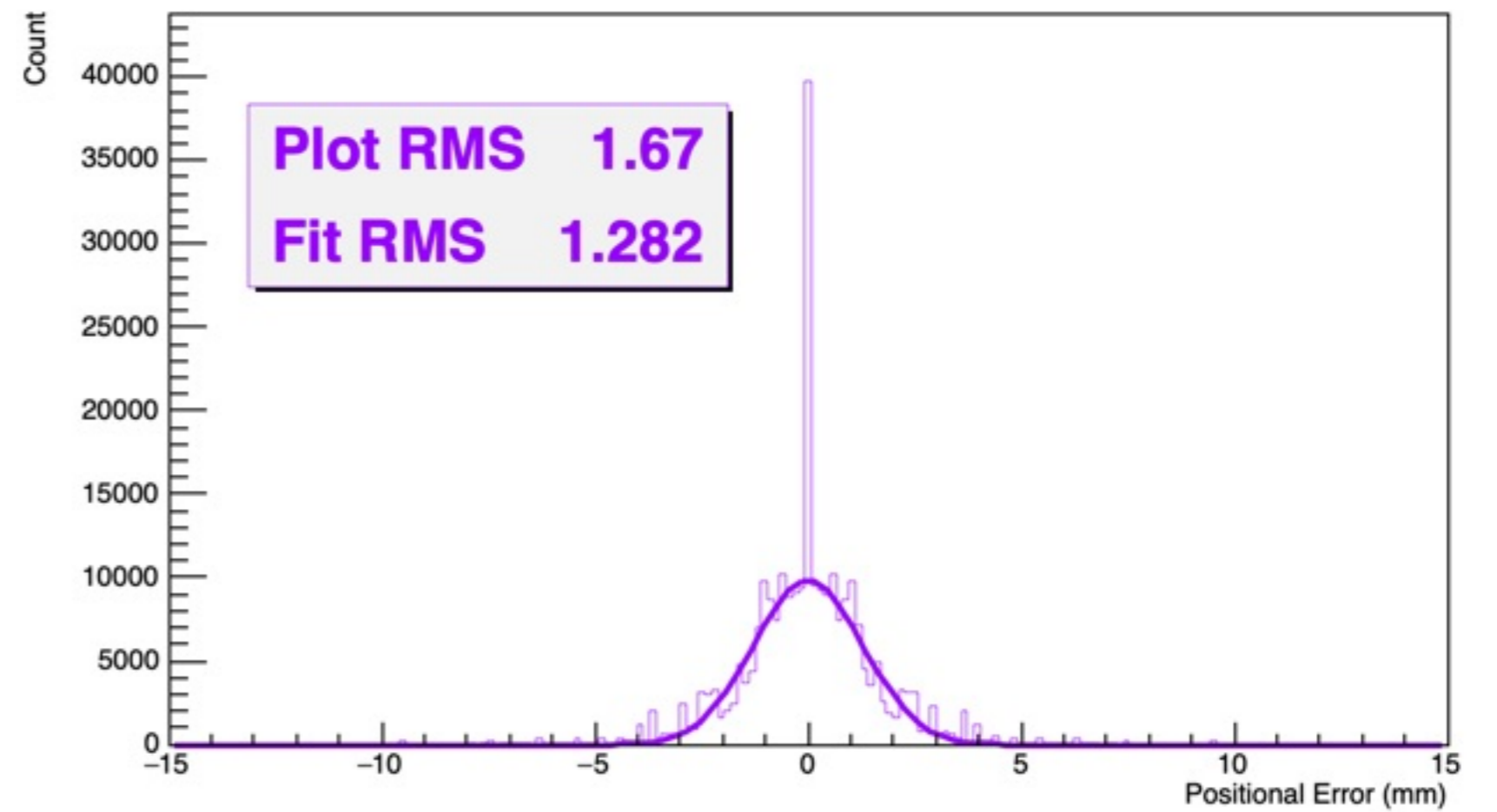
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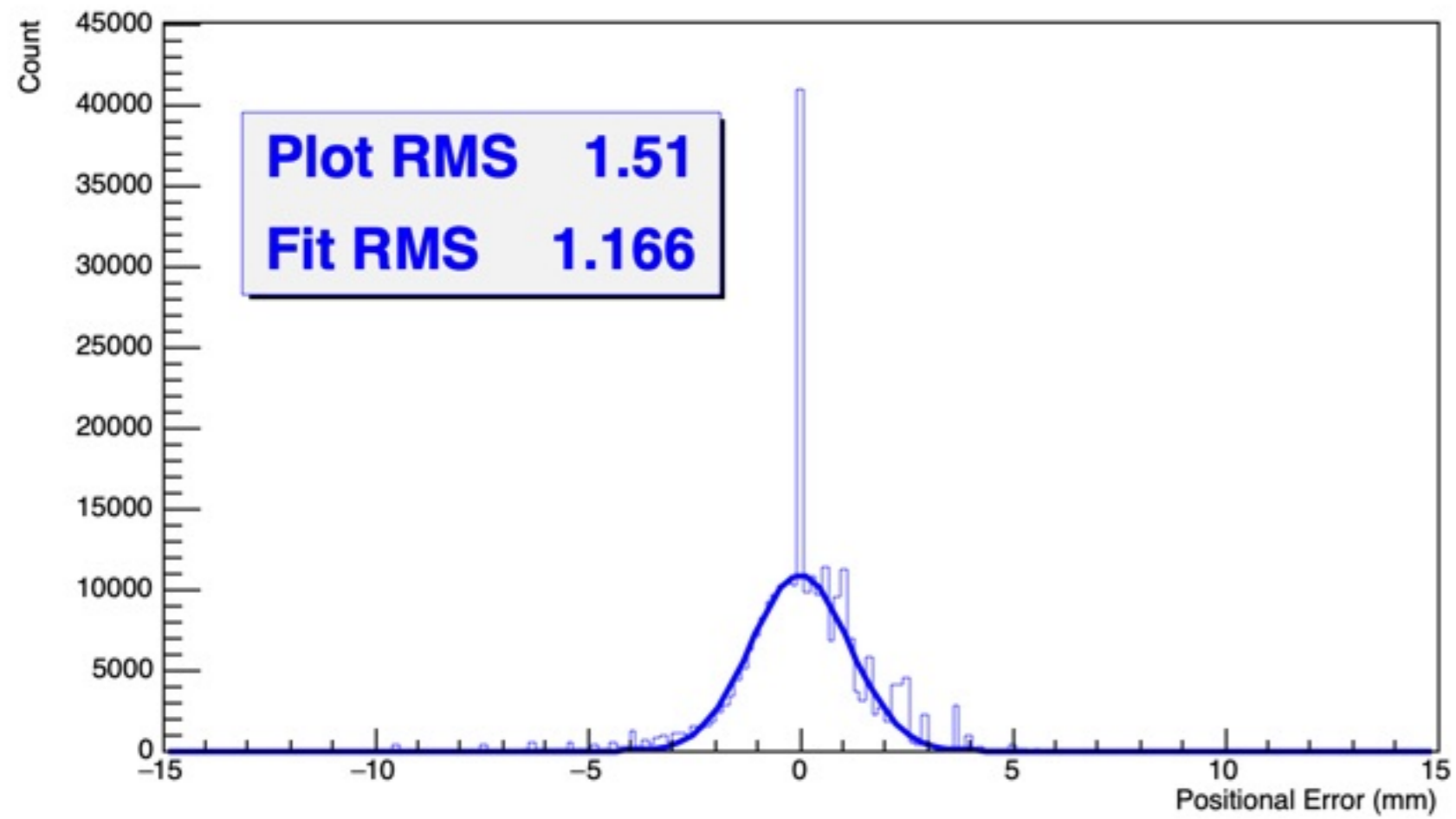
Y-Plane X



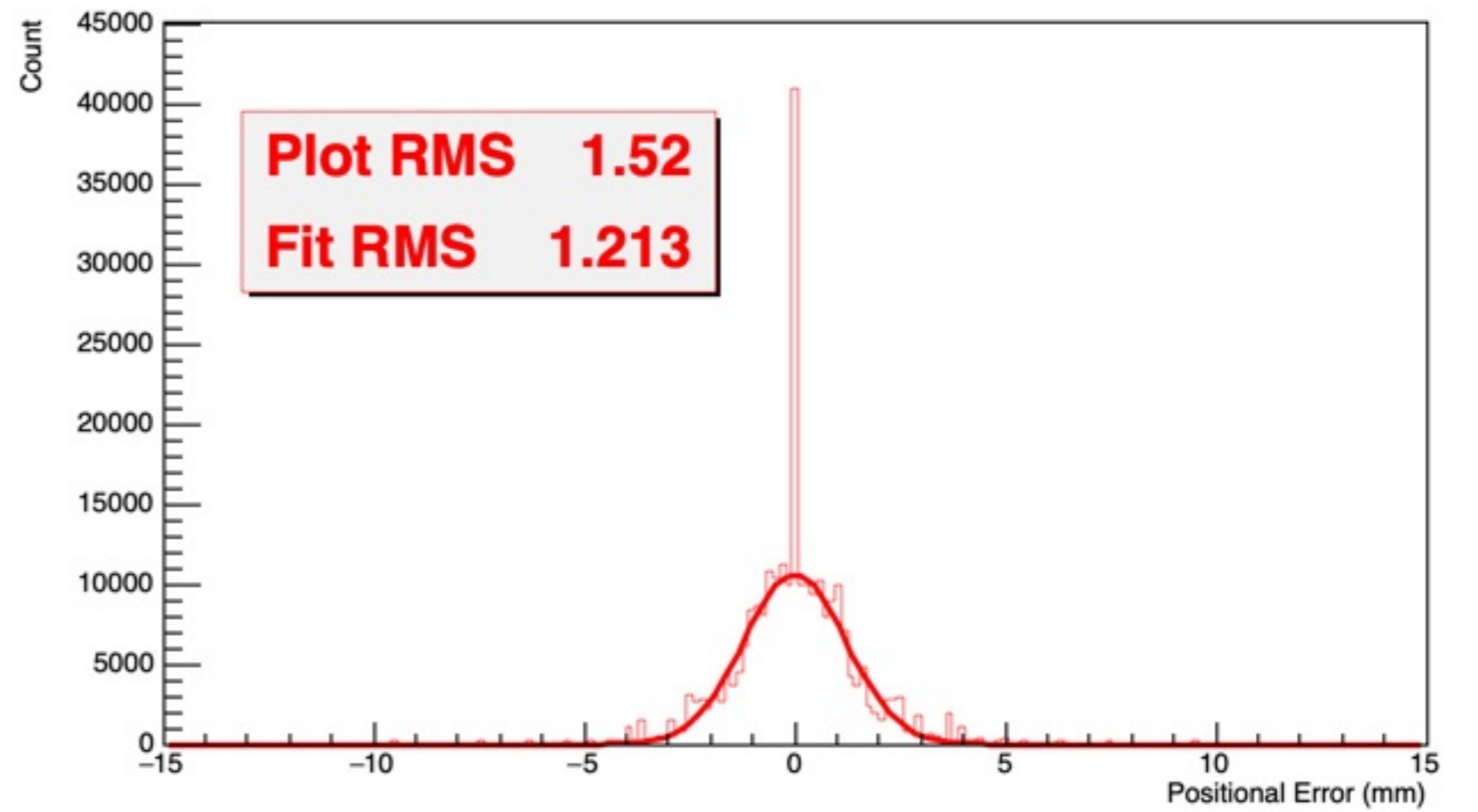
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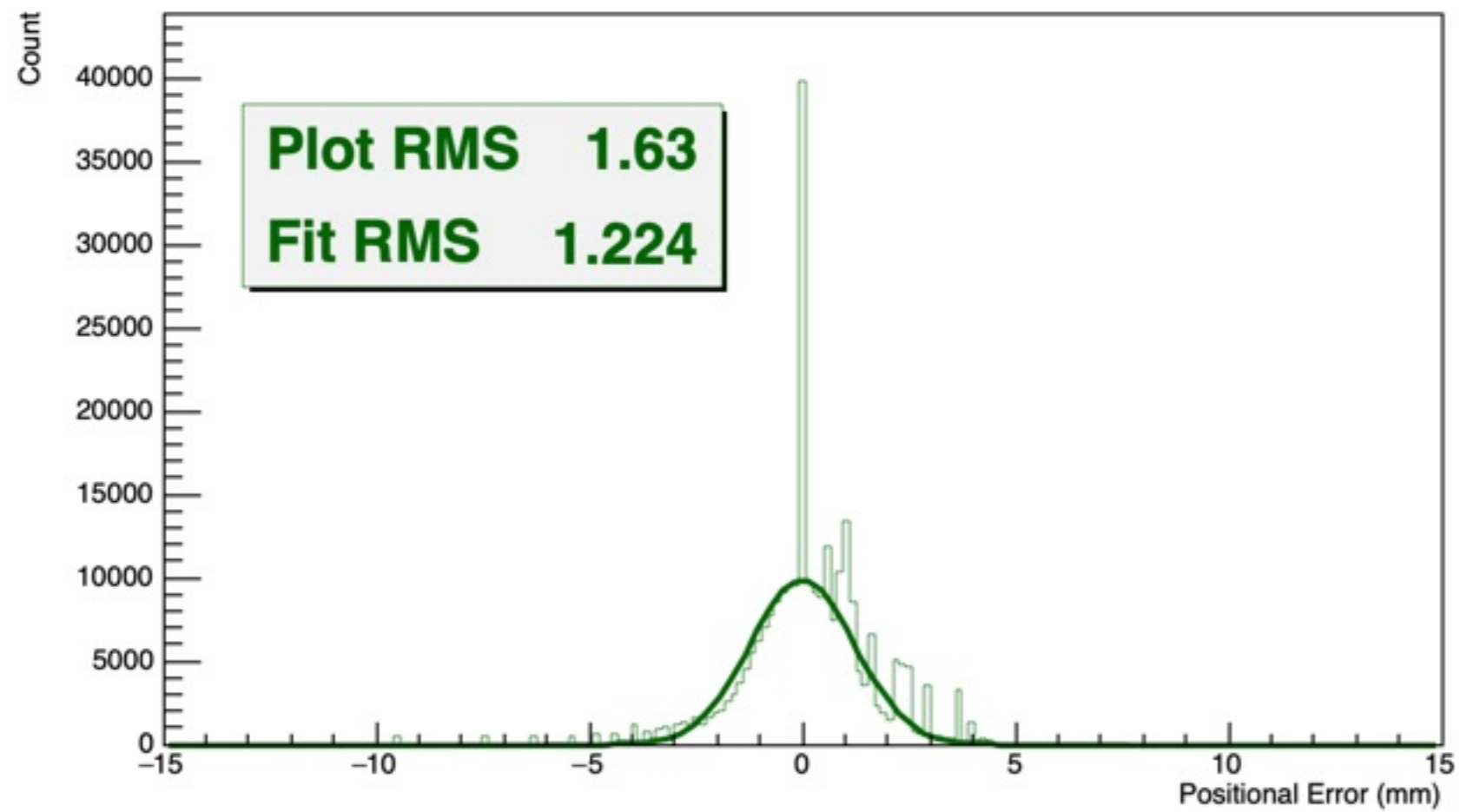
Positional Error - 120 PE/cm Yield, Z-Plane X



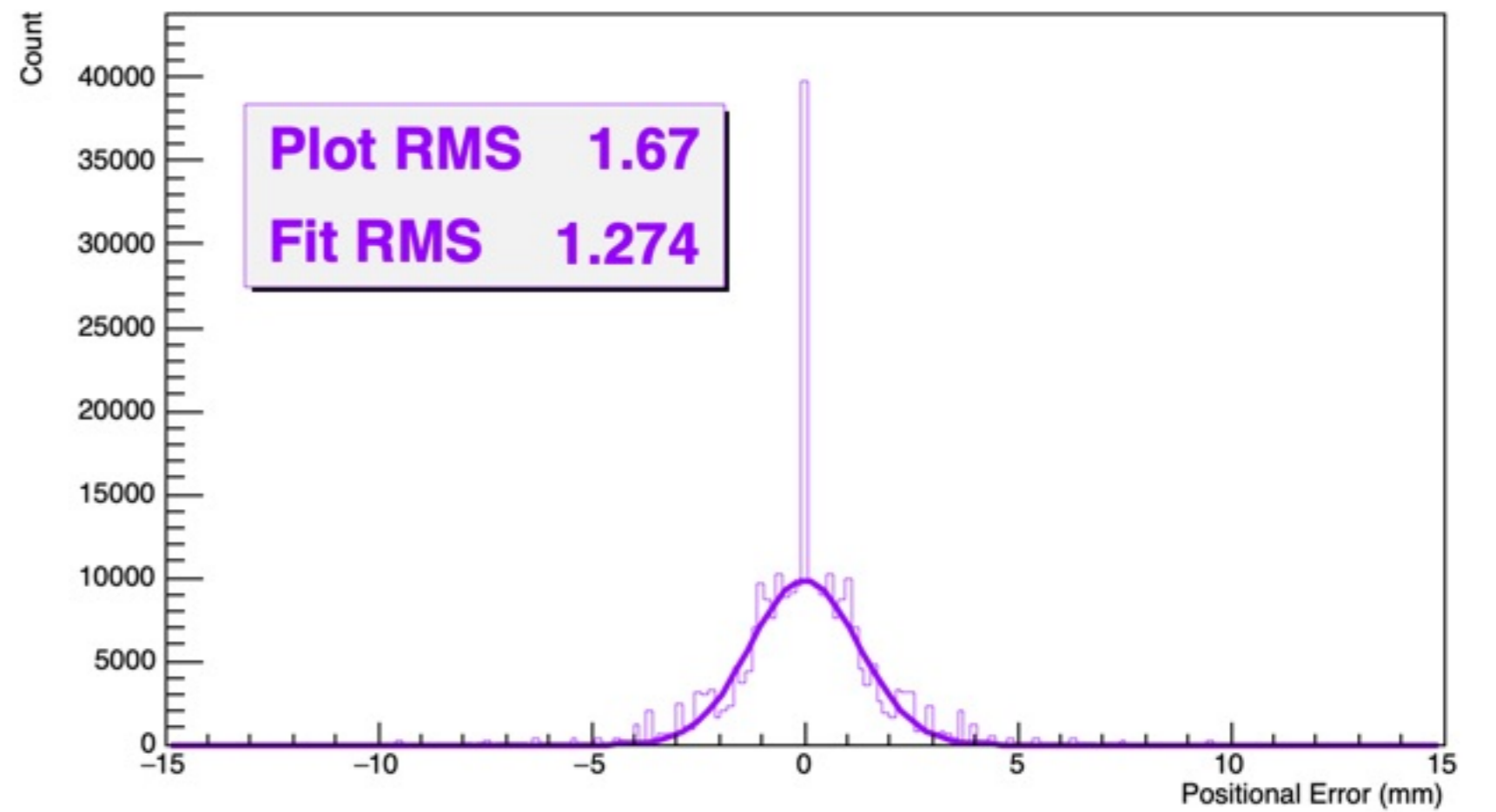
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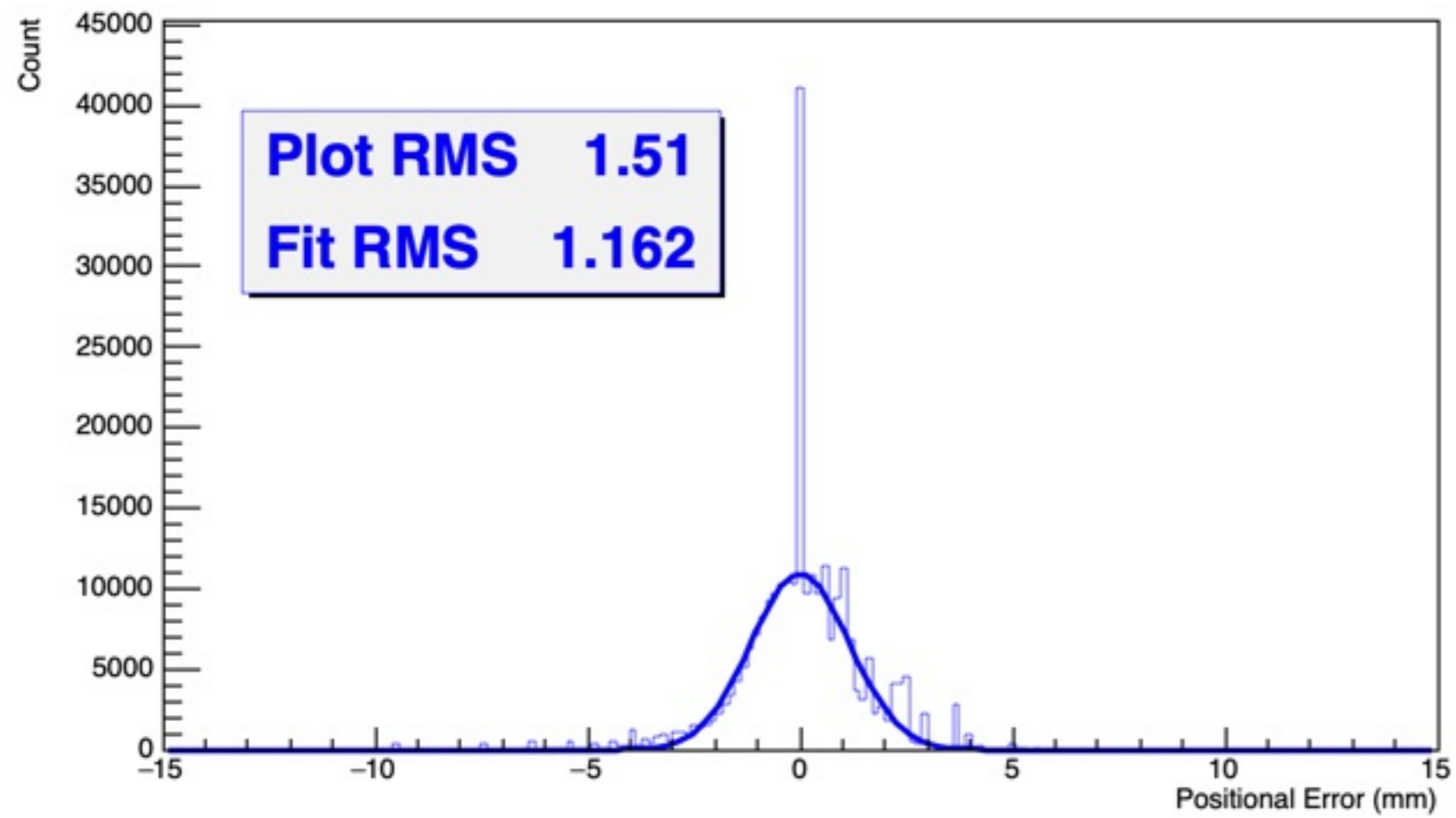
Y-Plane X



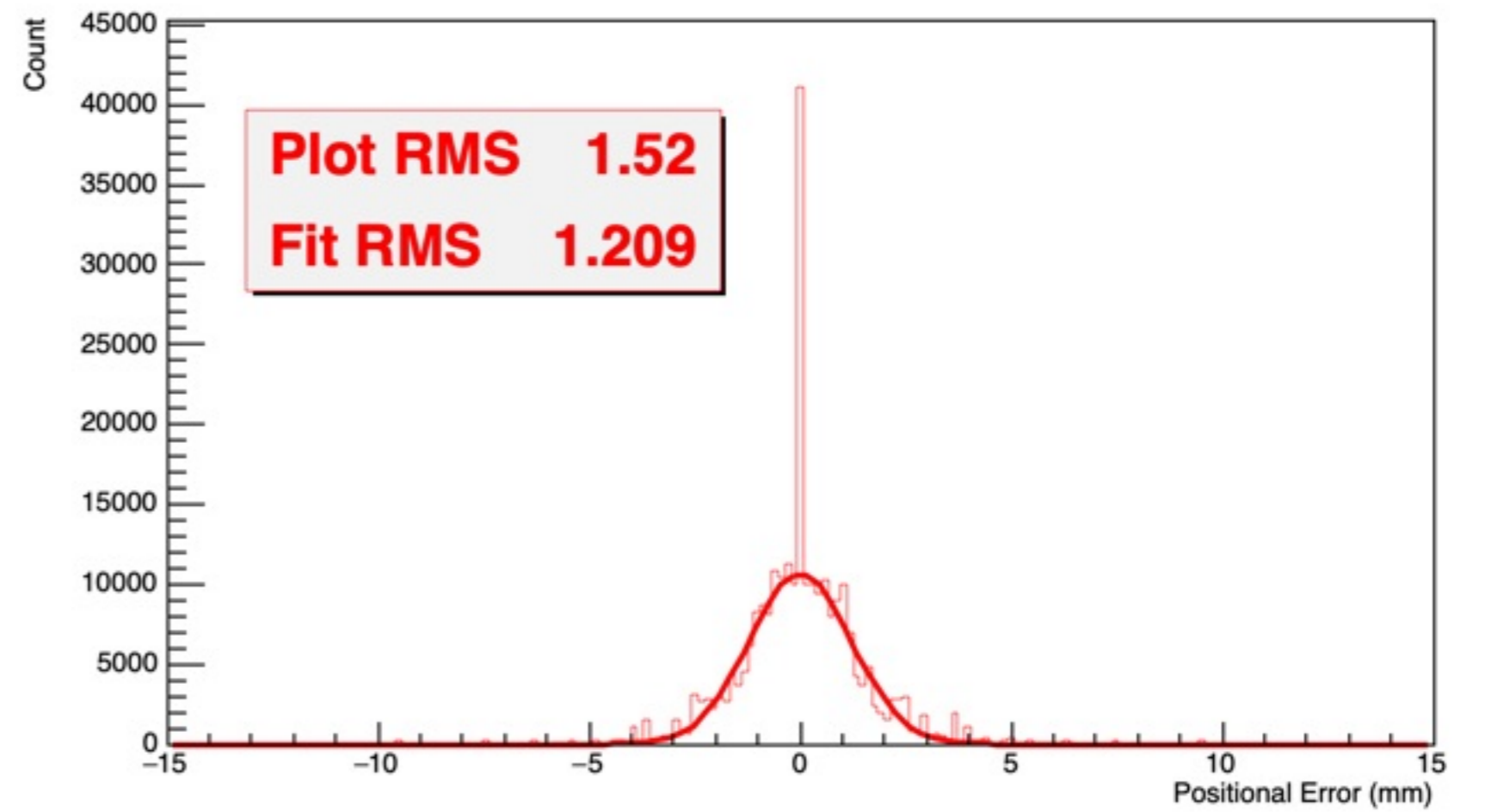
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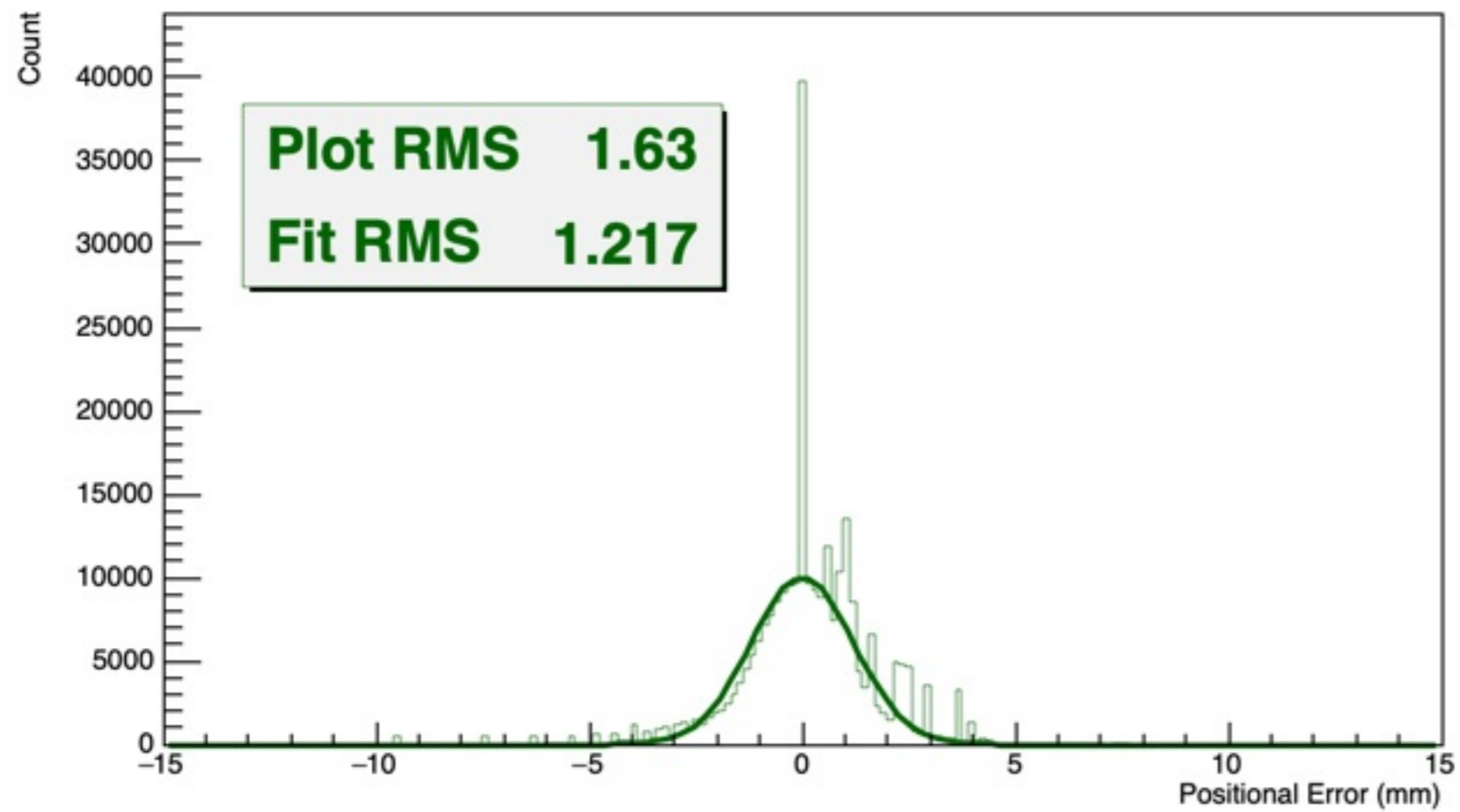
Positional Error - 125 PE/cm Yield, Z-Plane X



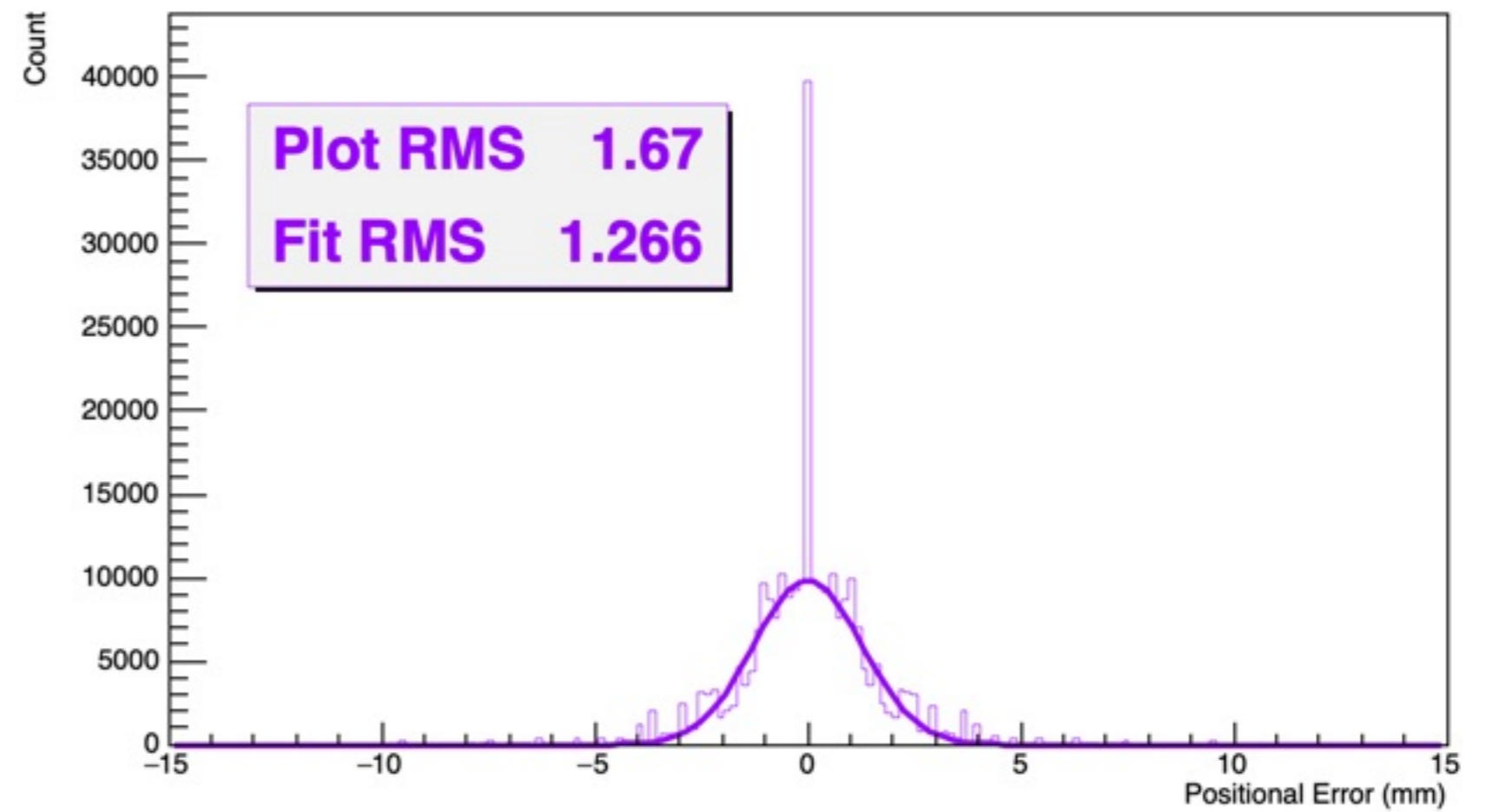
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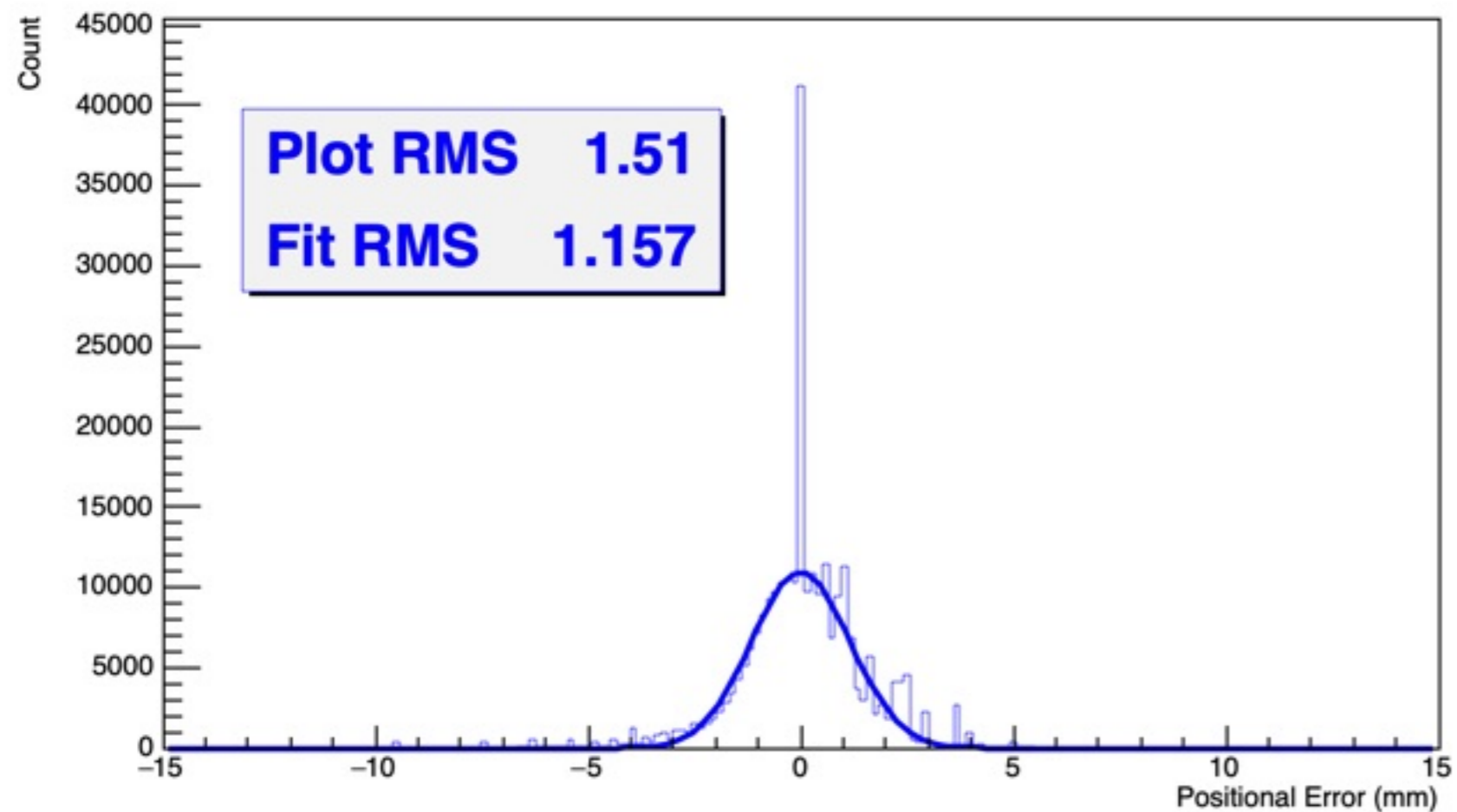
Y-Plane X



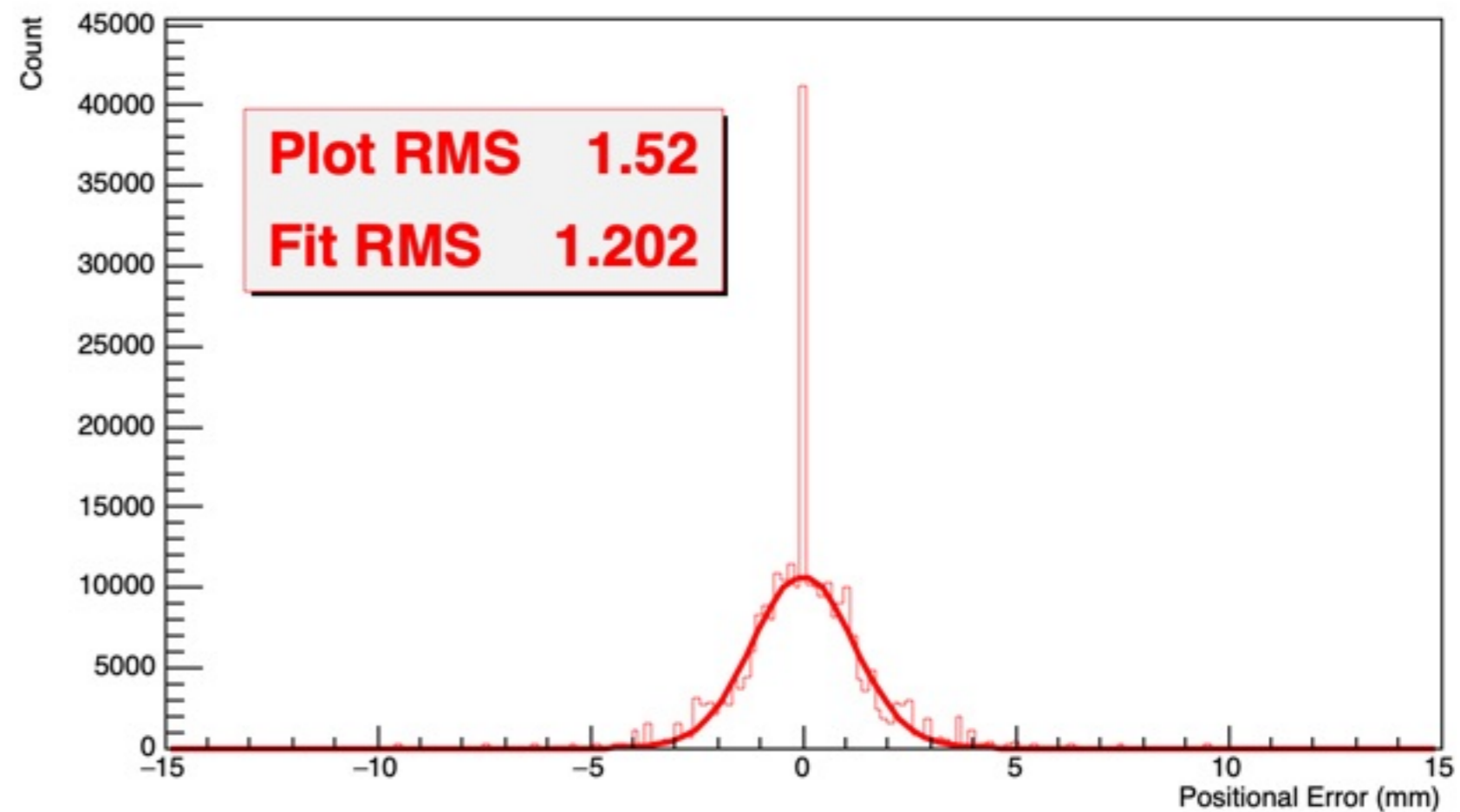
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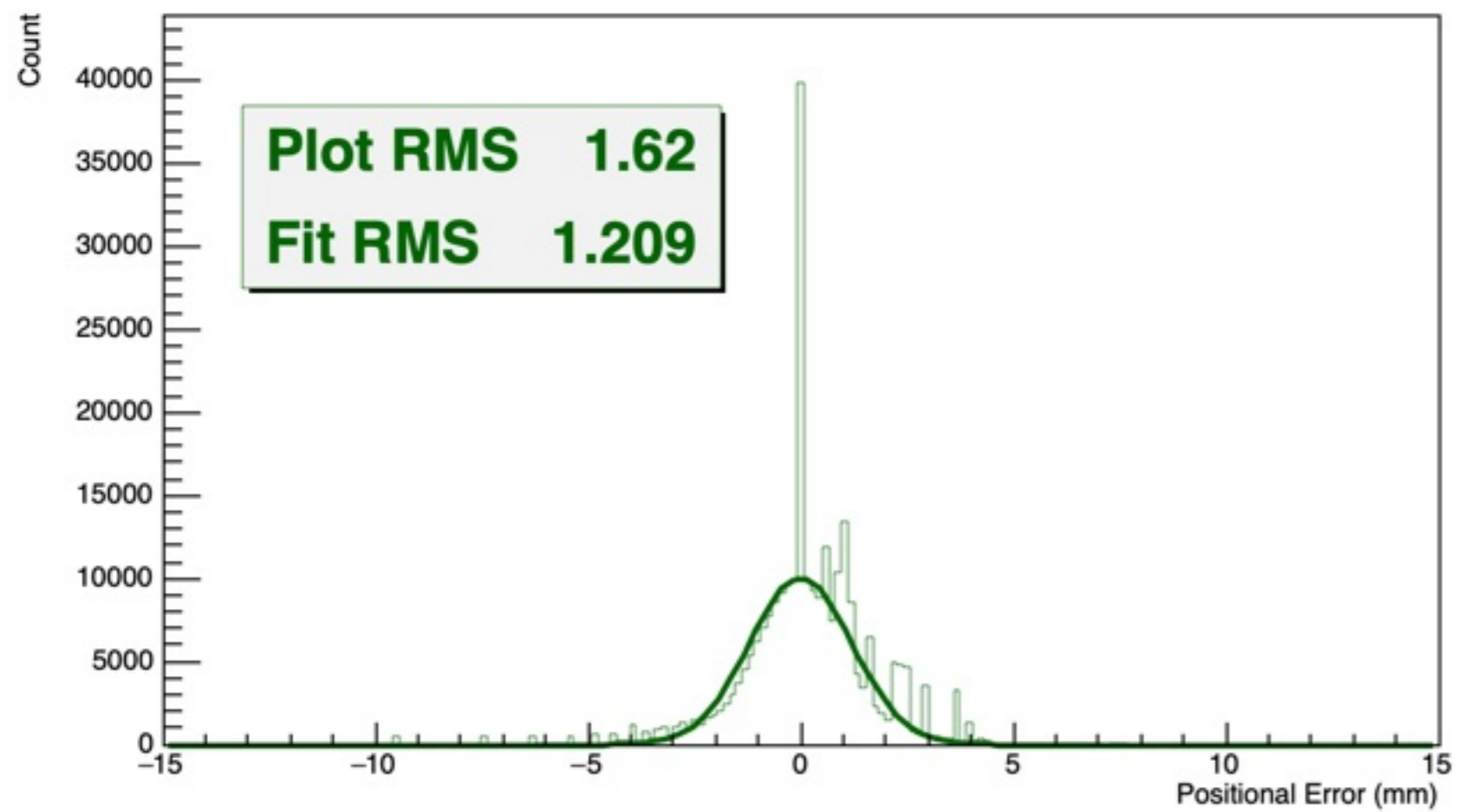
Positional Error - 130 PE/cm Yield, Z-Plane X



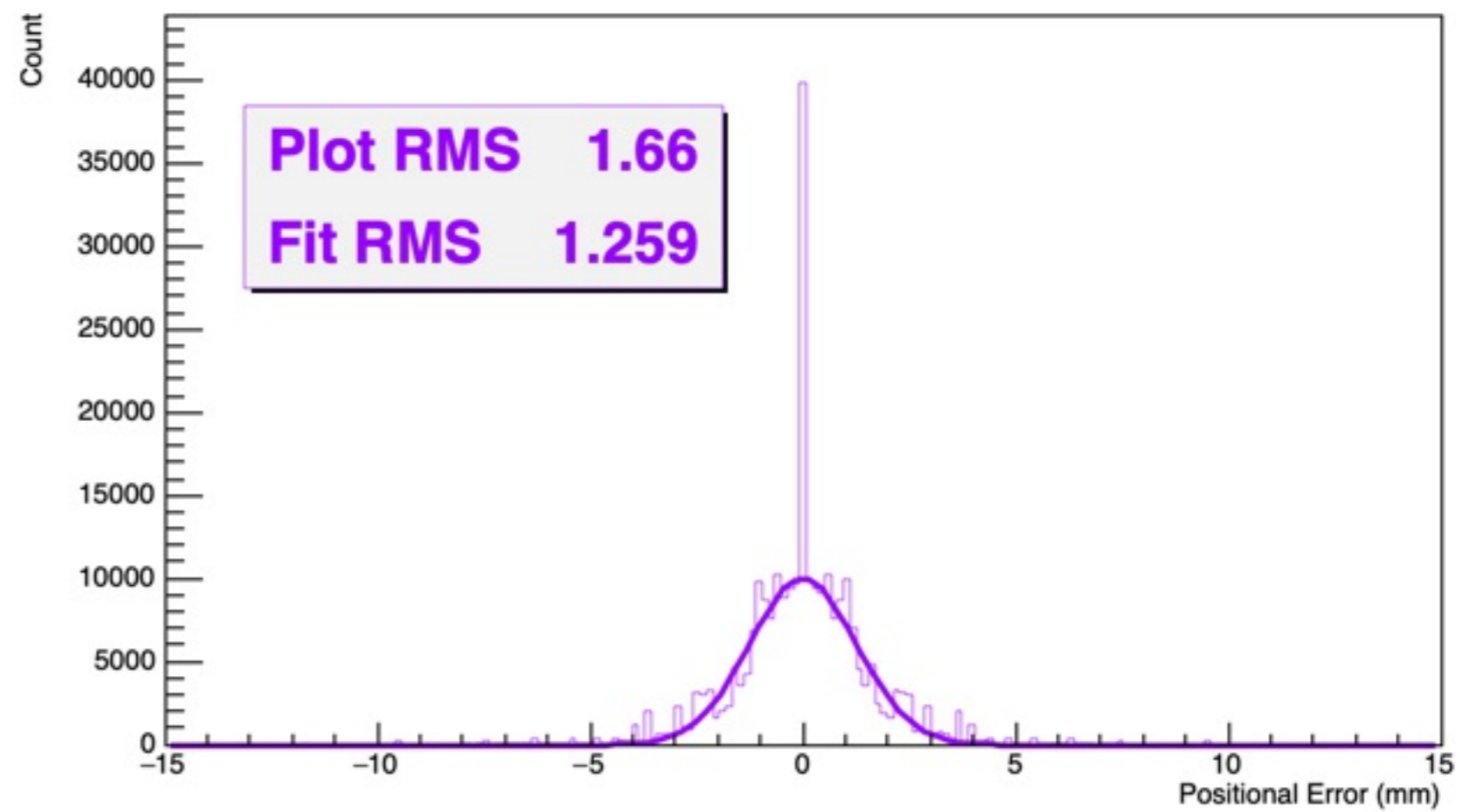
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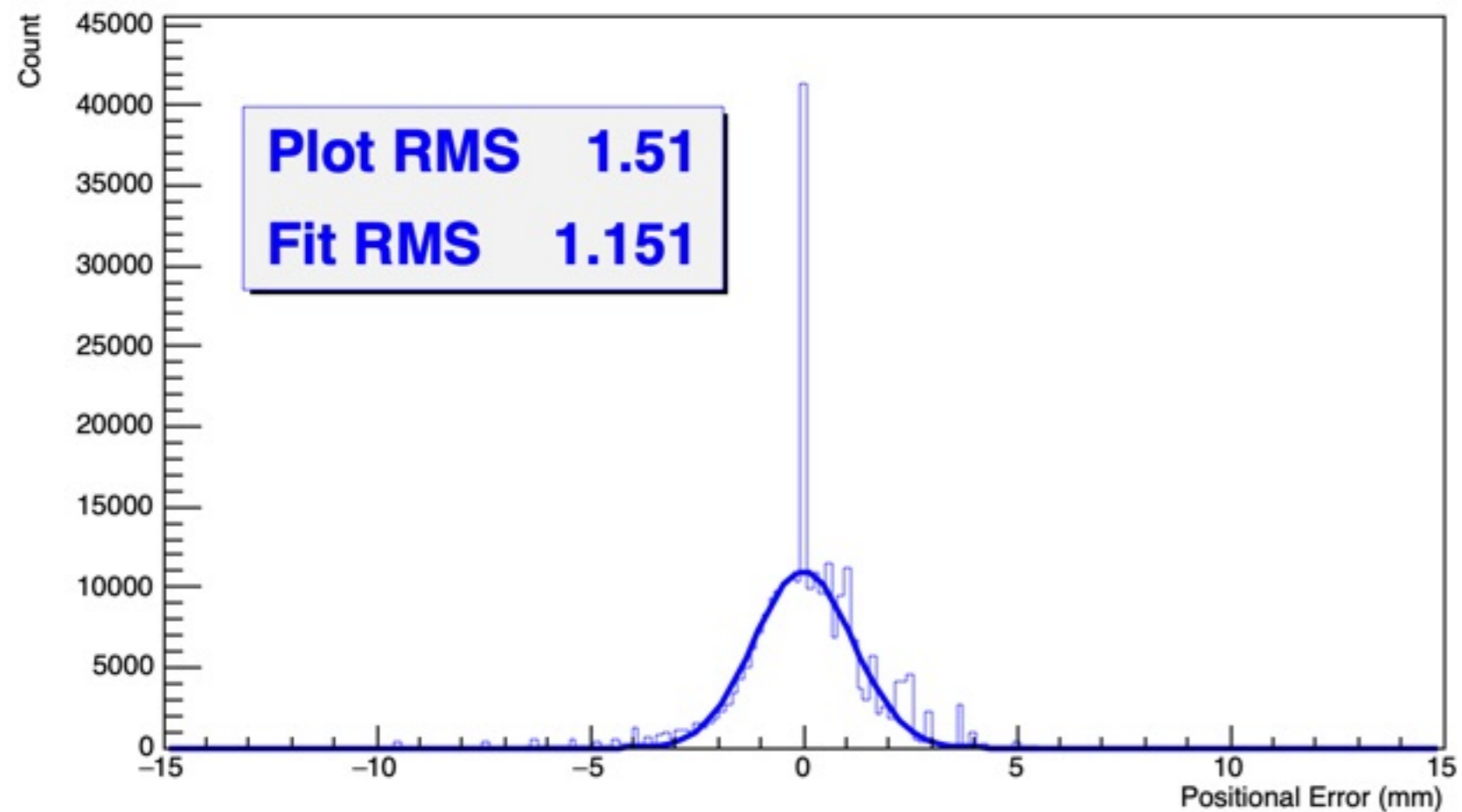
Y-Plane X



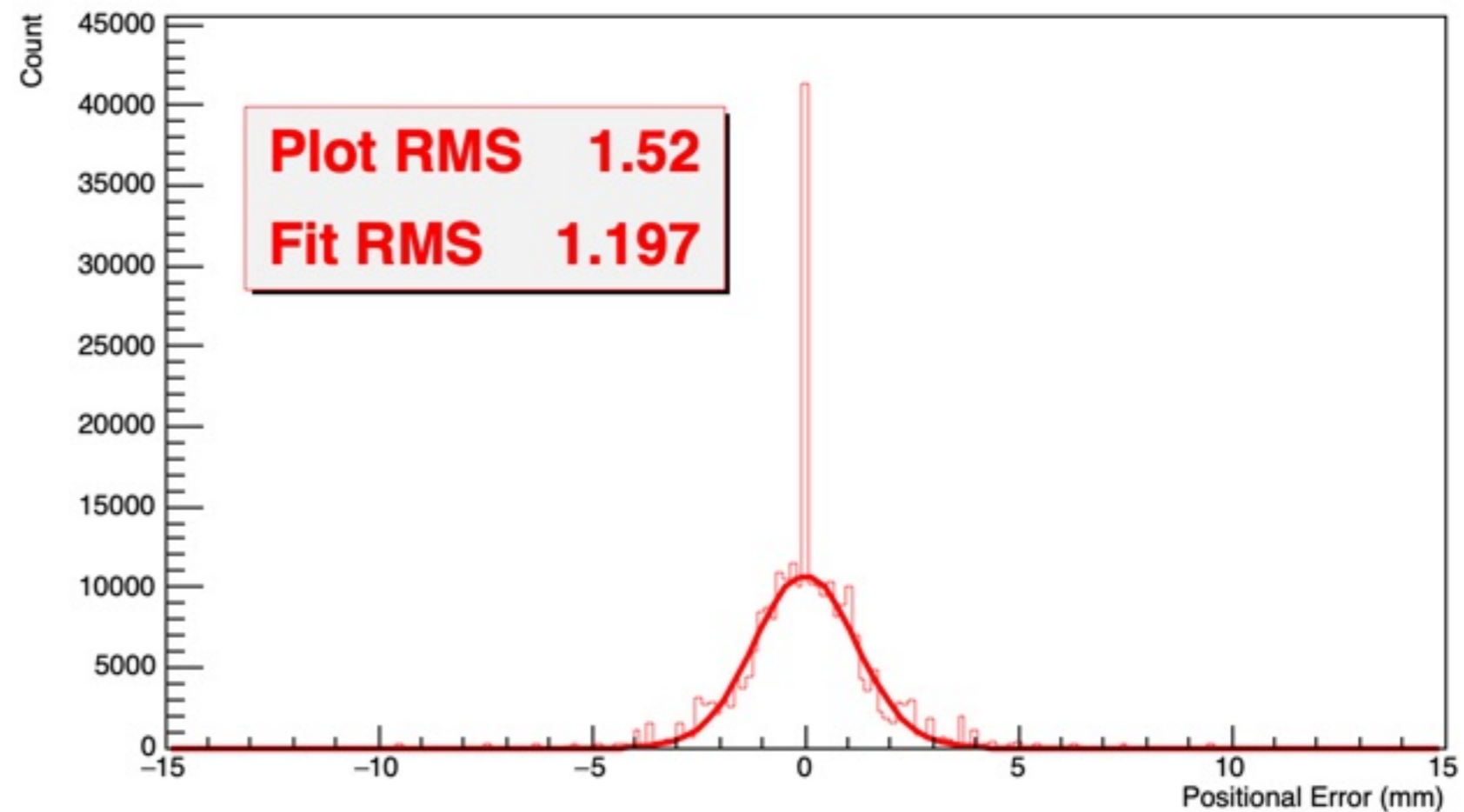
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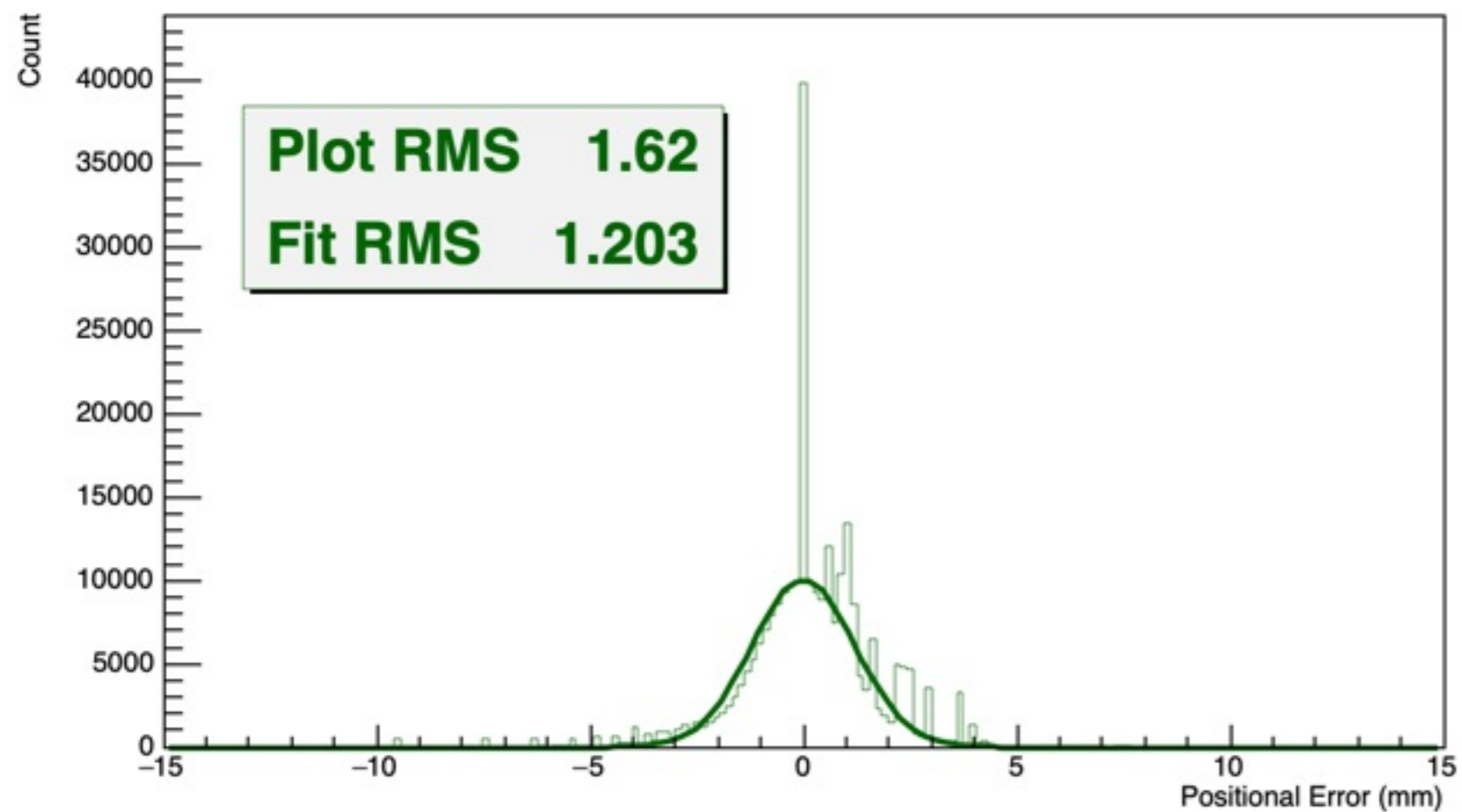
Positional Error - 135 PE/cm Yield, Z-Plane X



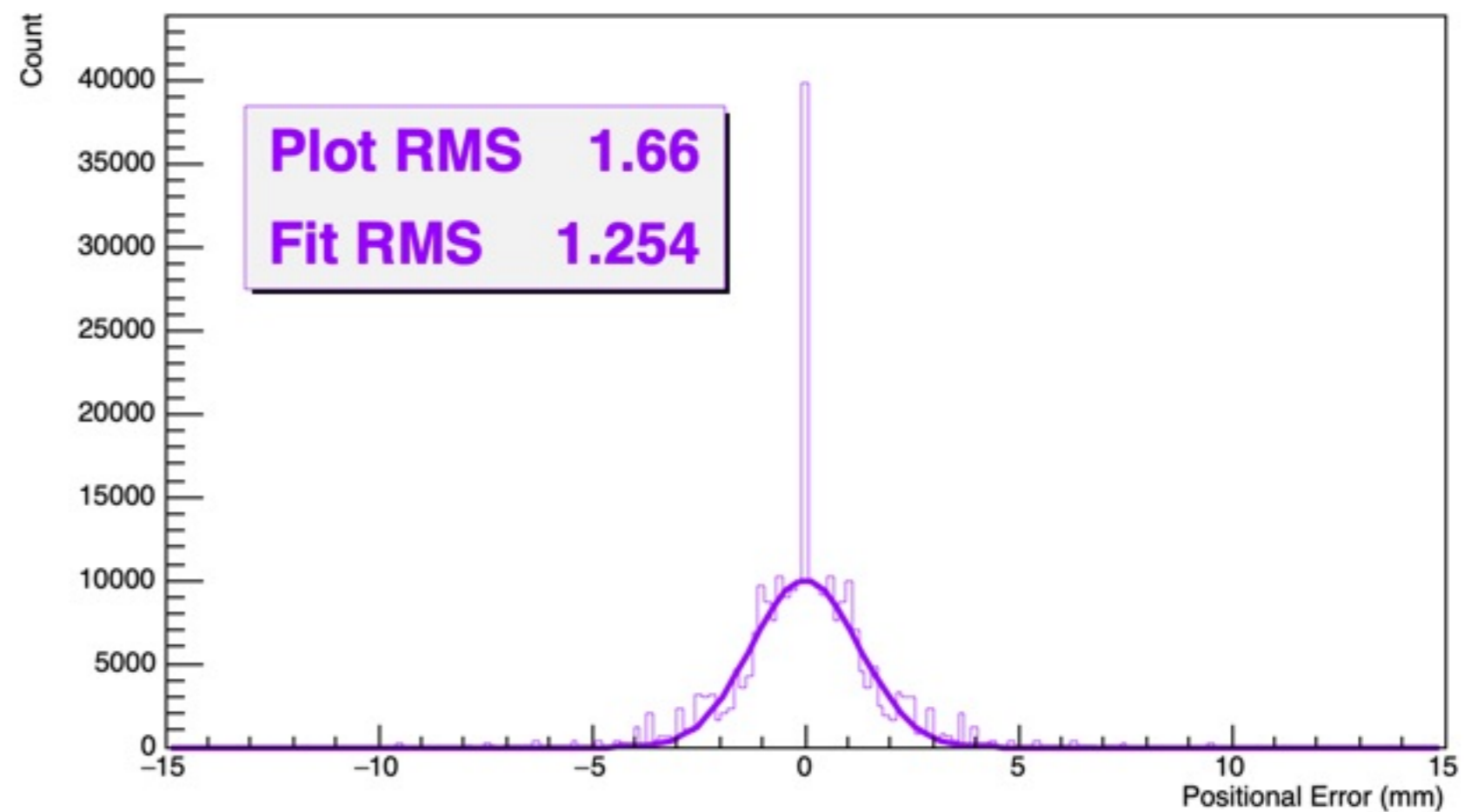
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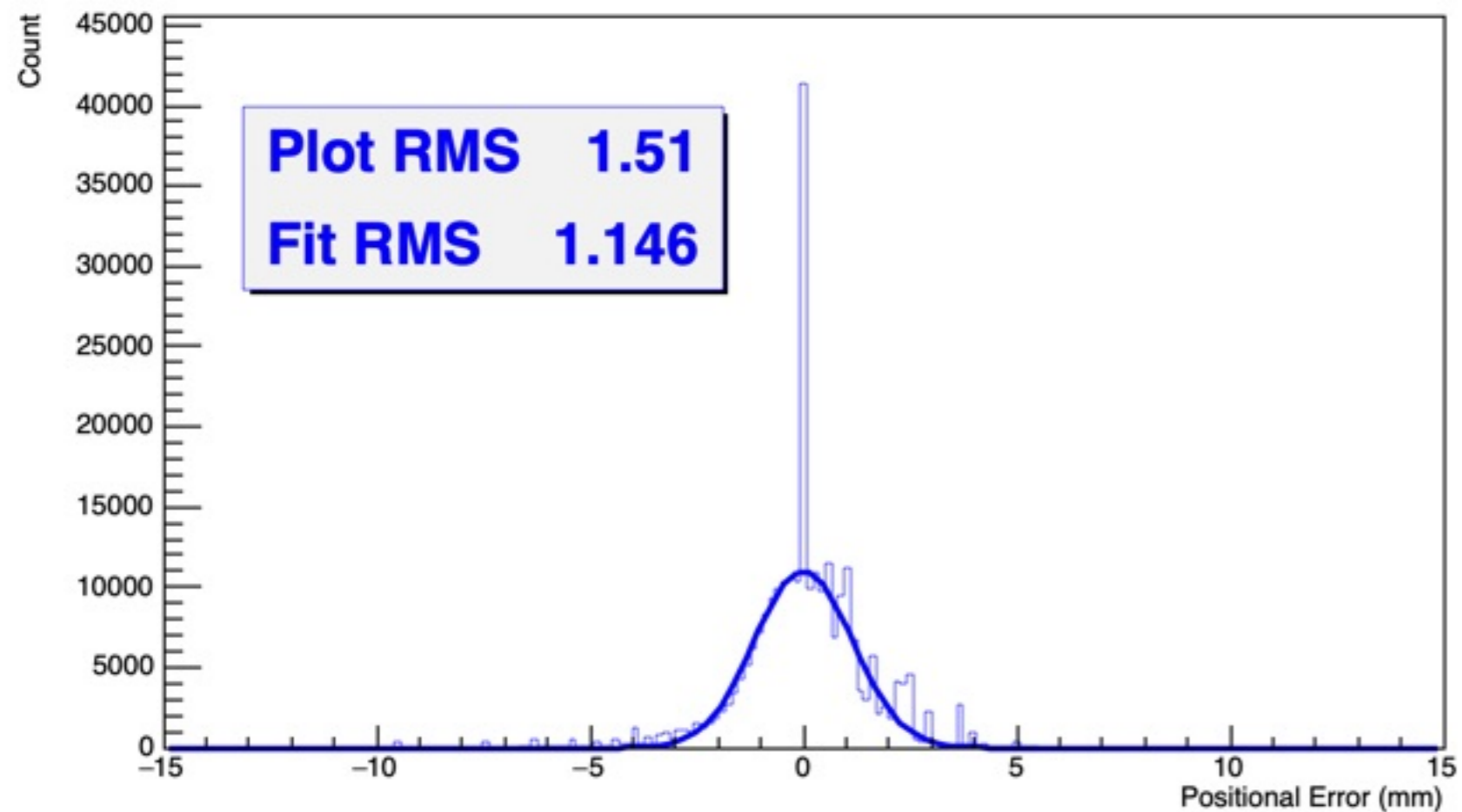
Y-Plane X



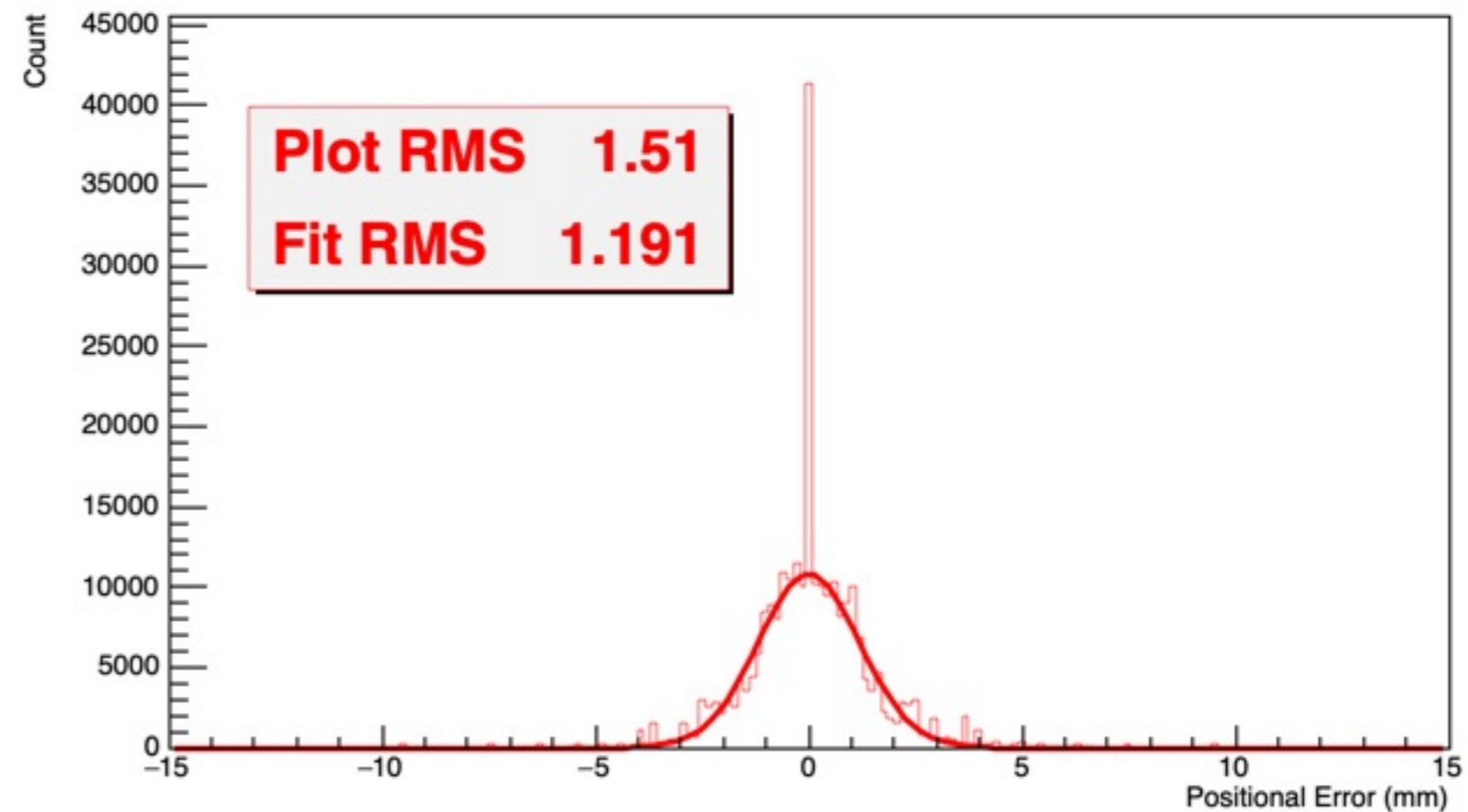
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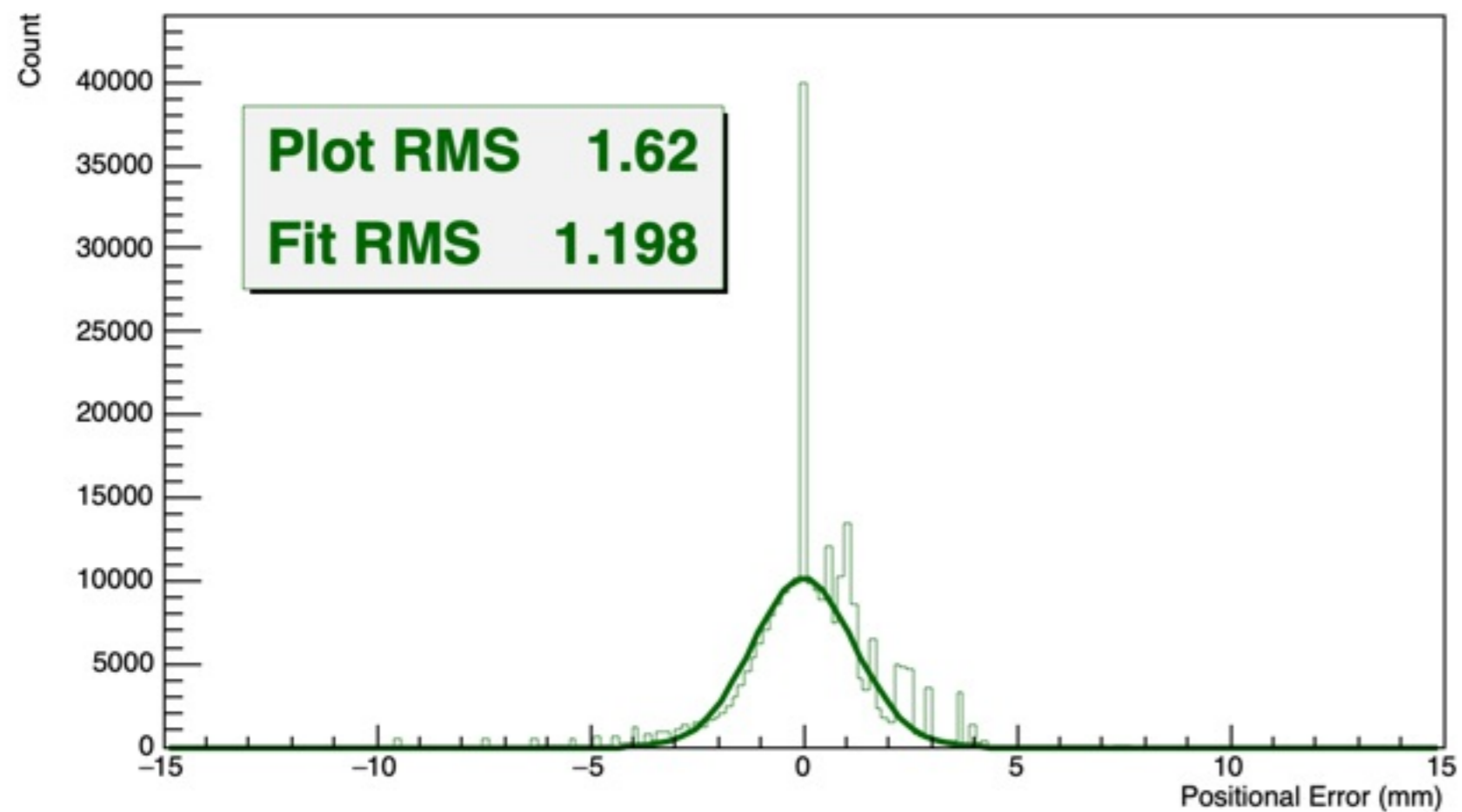
Positional Error - 140 PE/cm Yield, Z-Plane X



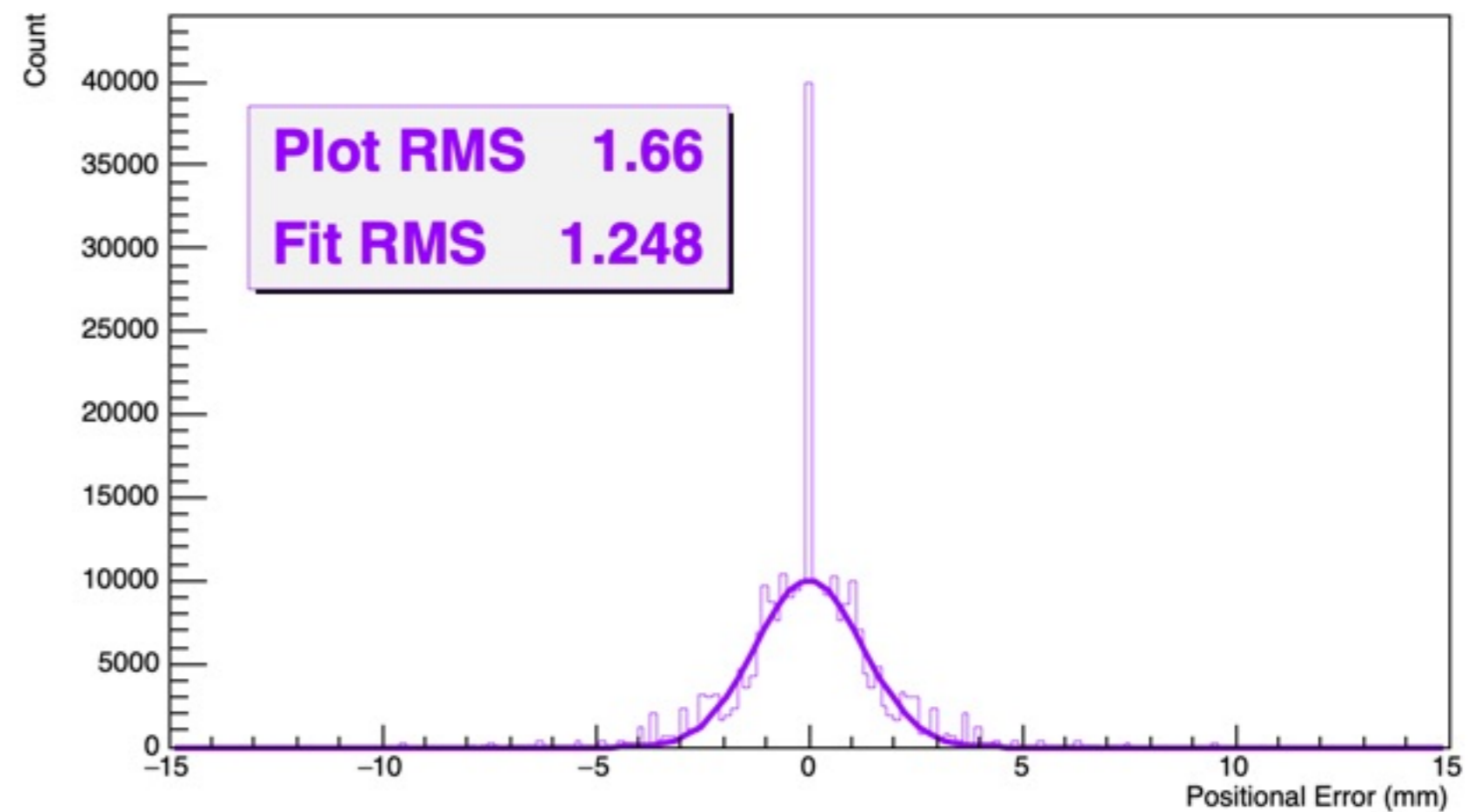
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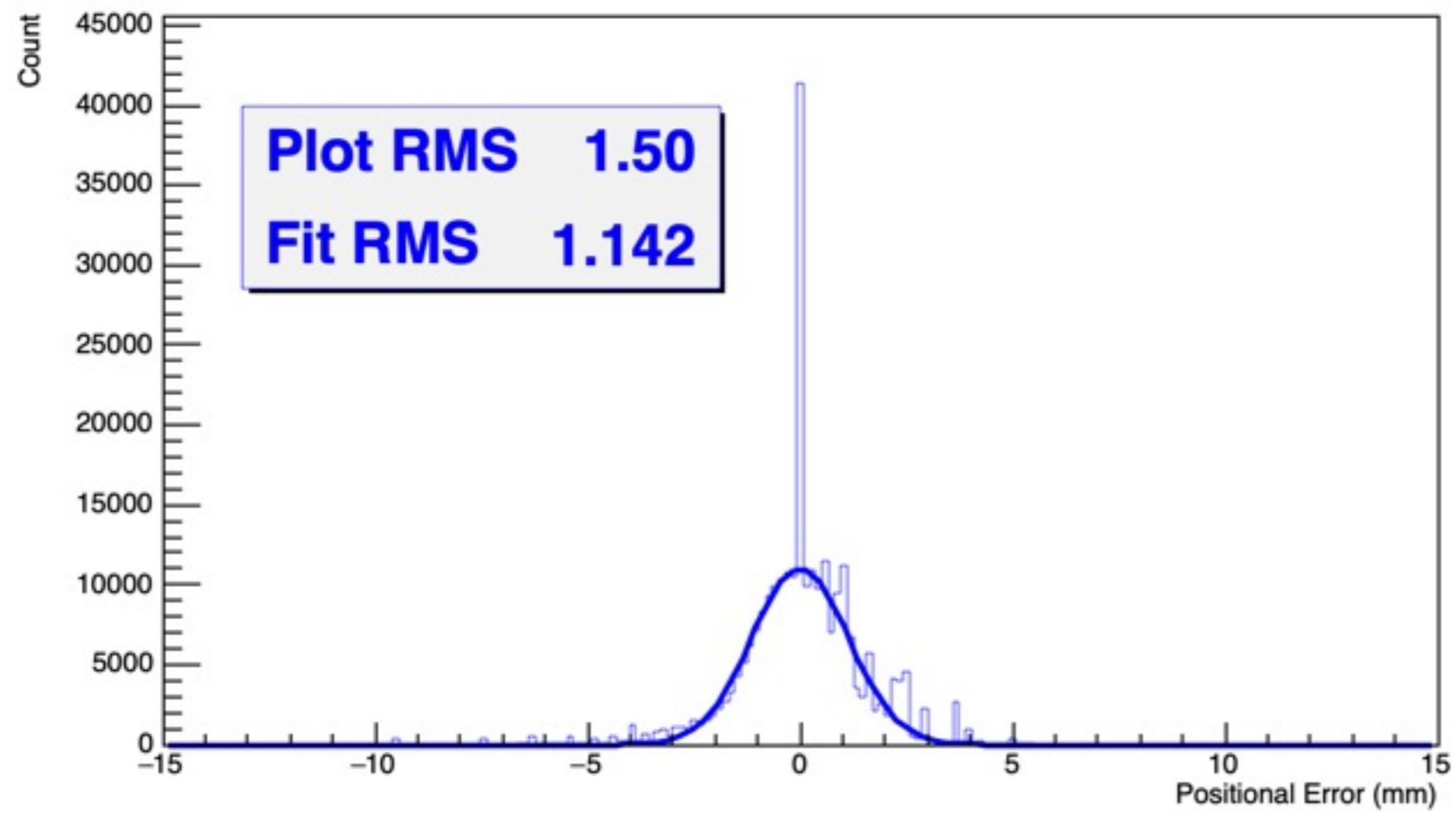
Y-Plane X



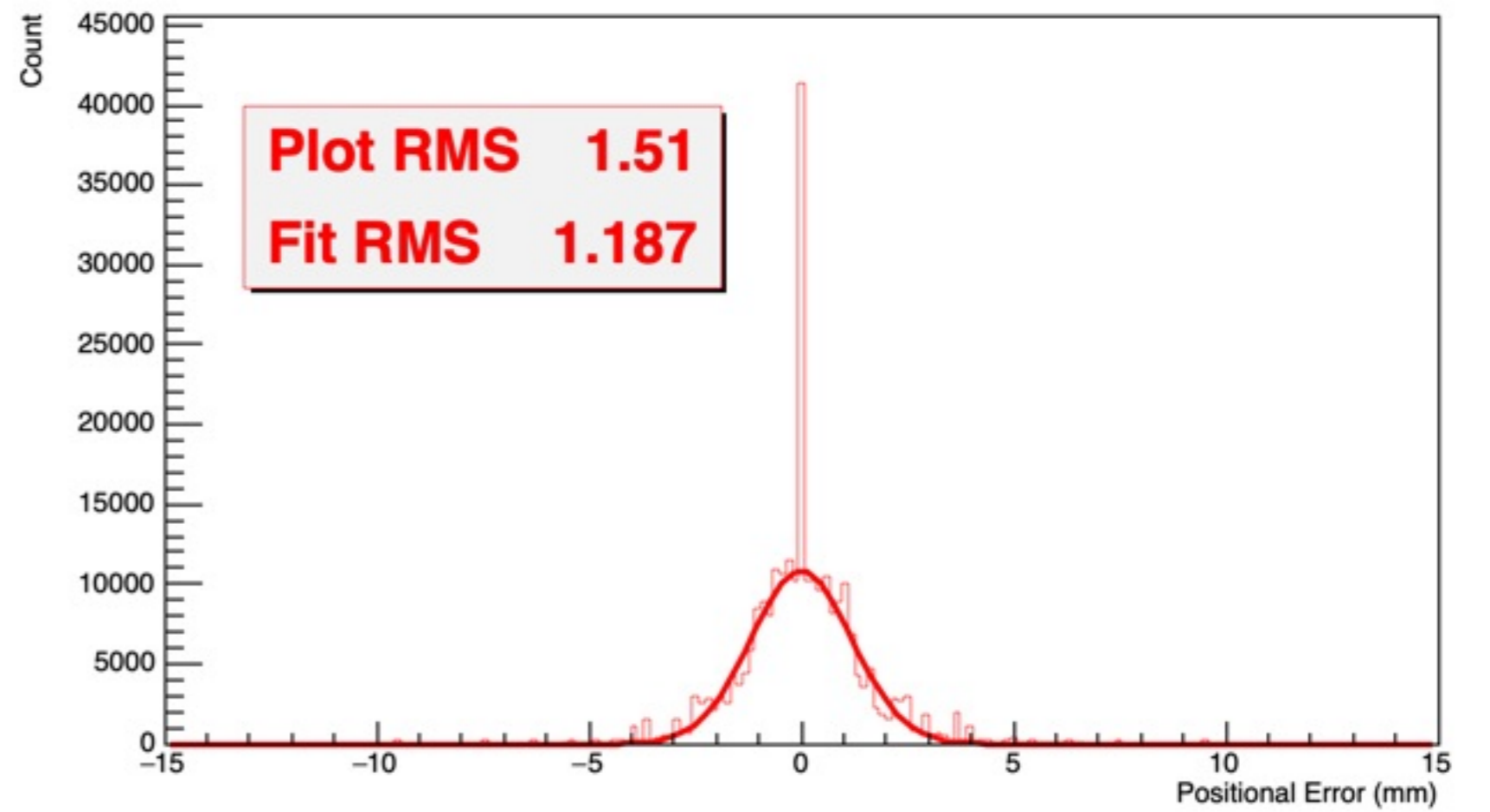
Y



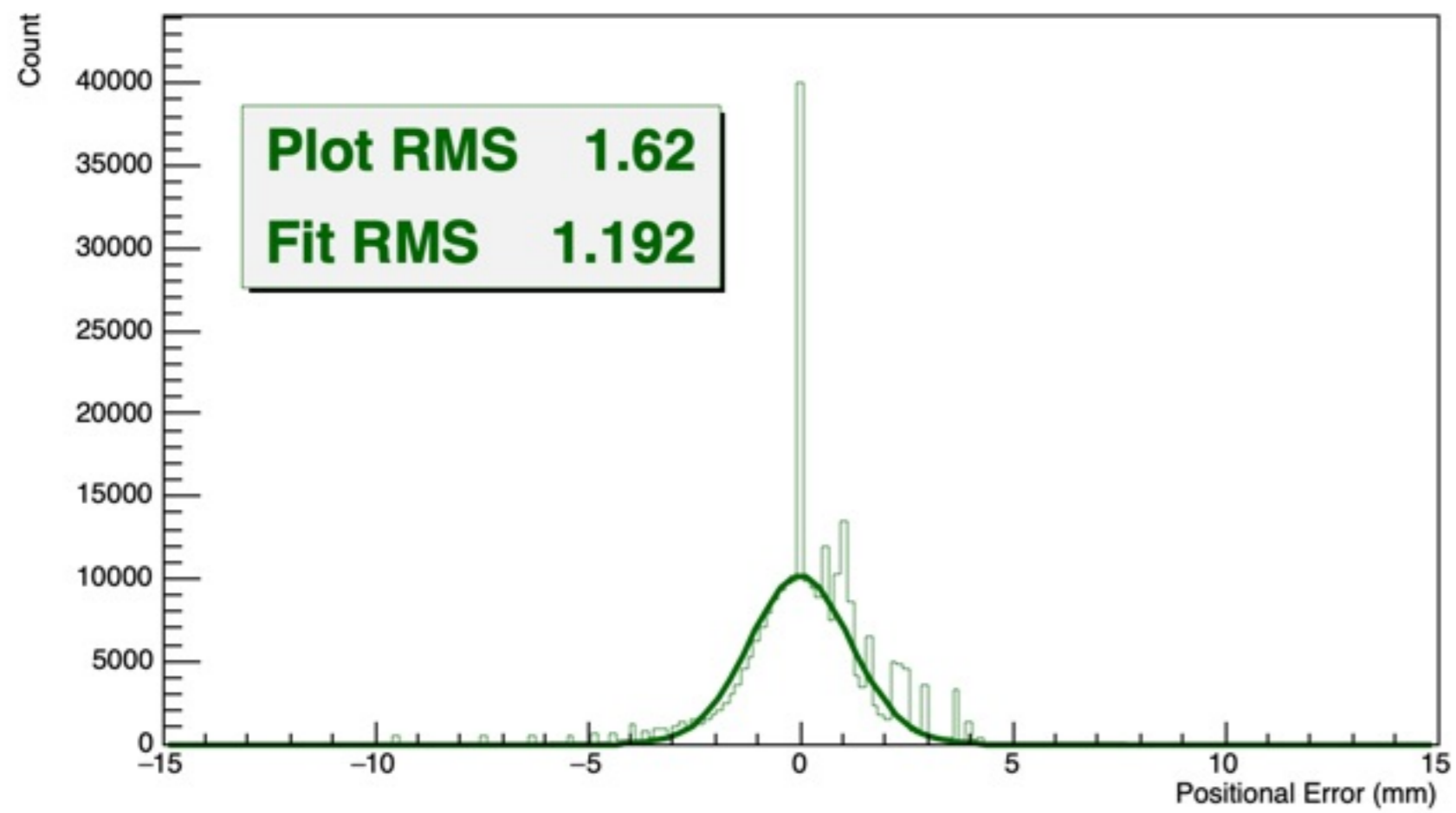
Positional Error - 145 PE/cm Yield, Z-Plane X



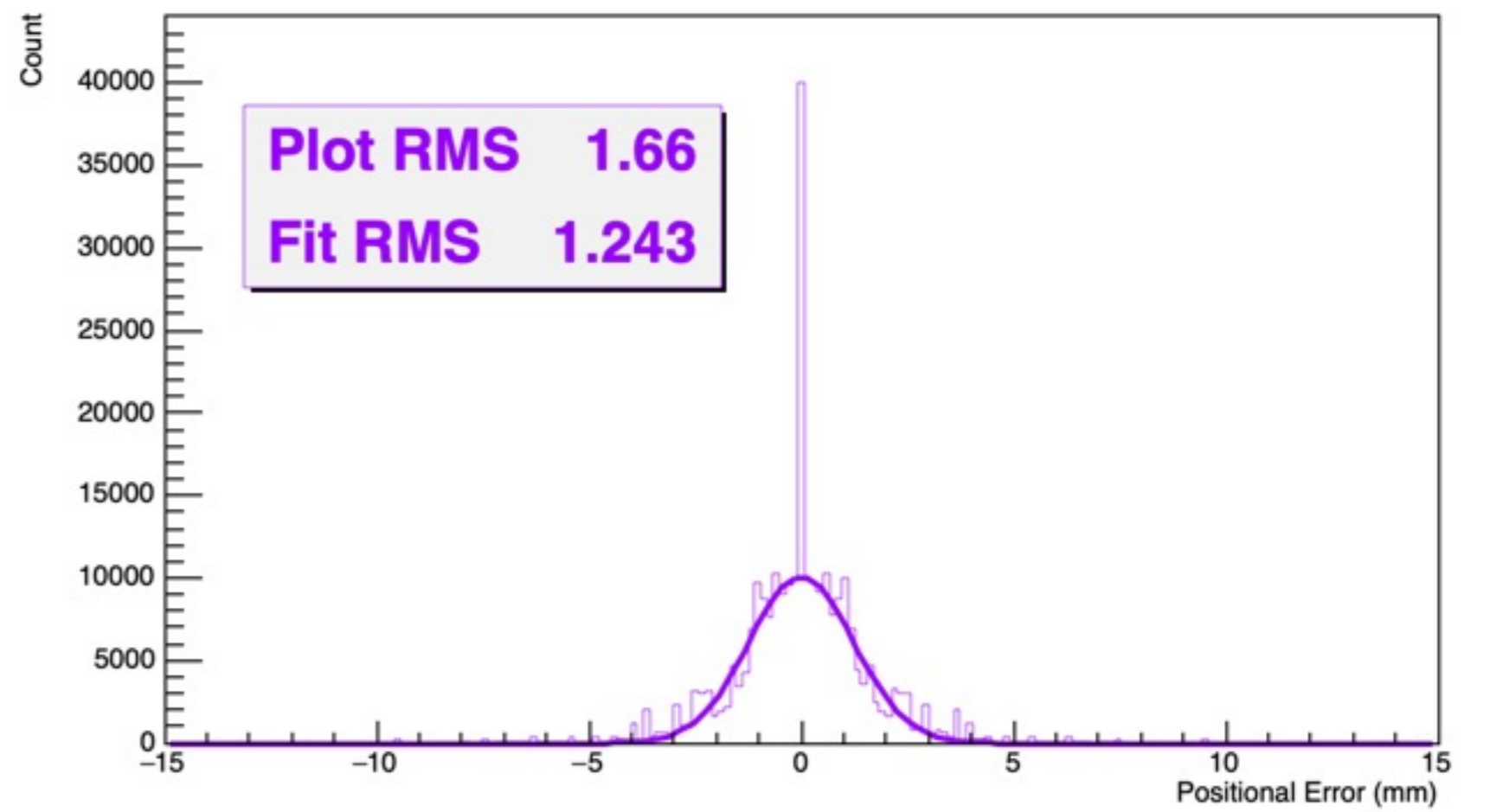
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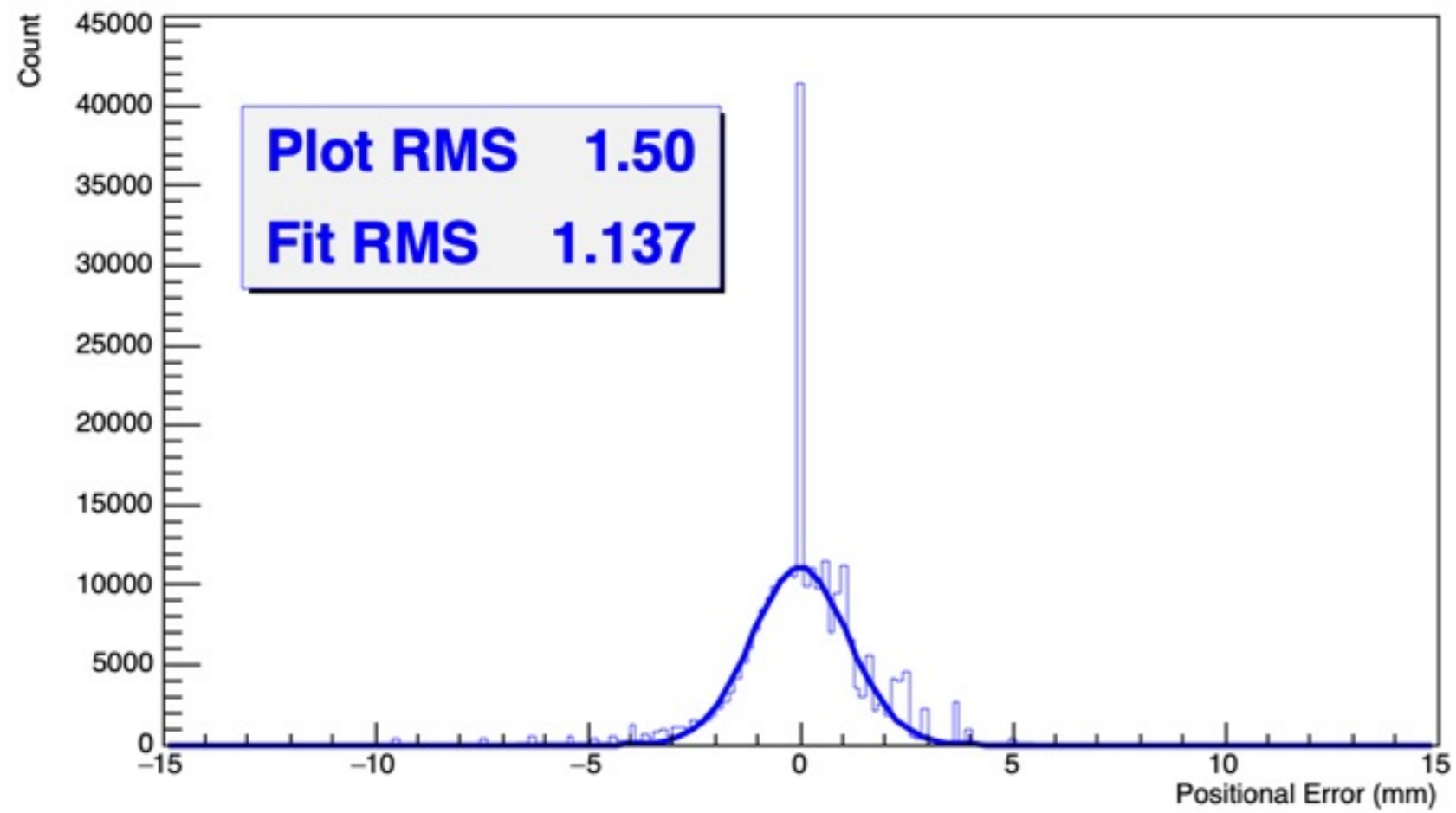
Y-Plane X



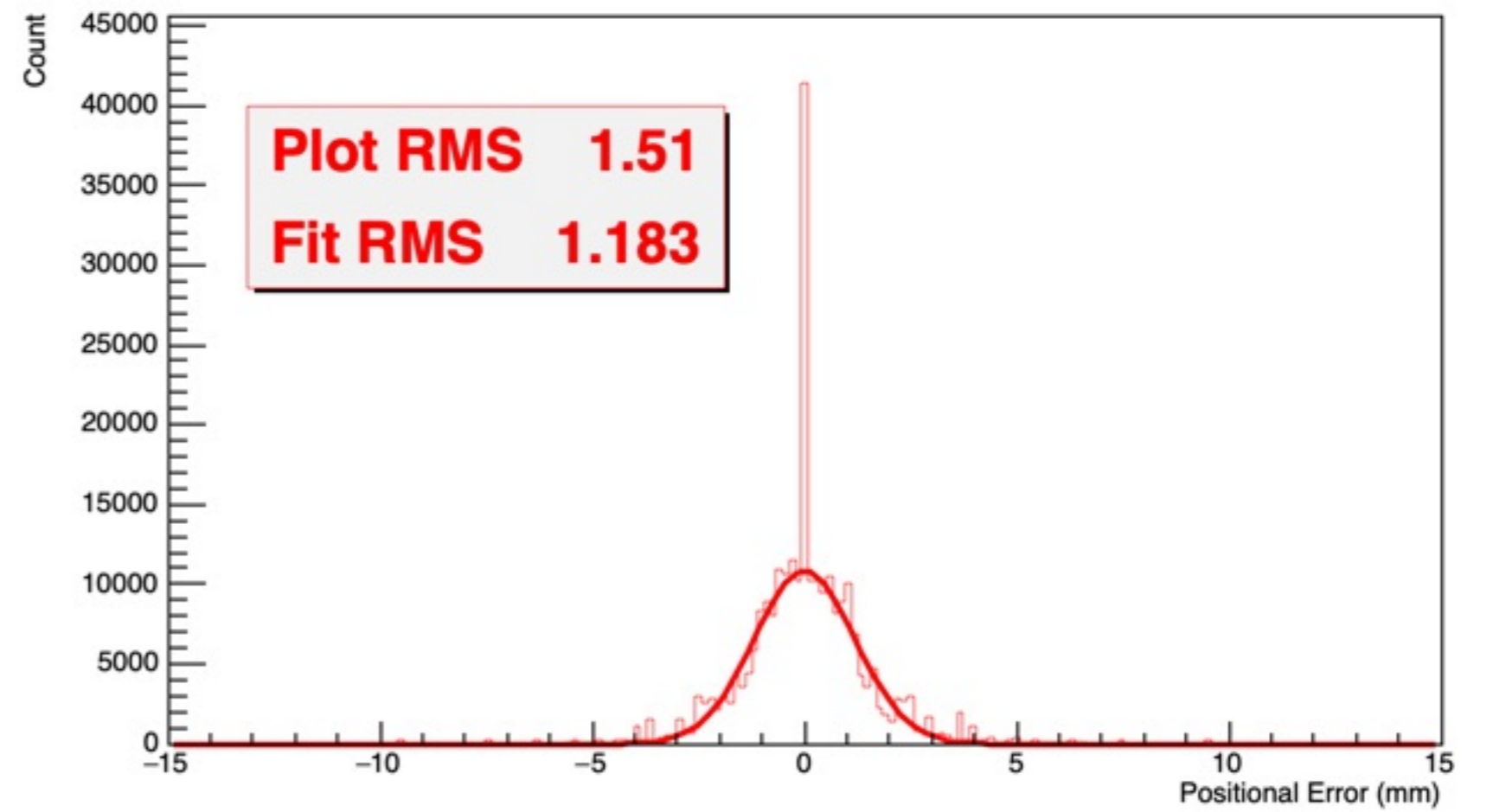
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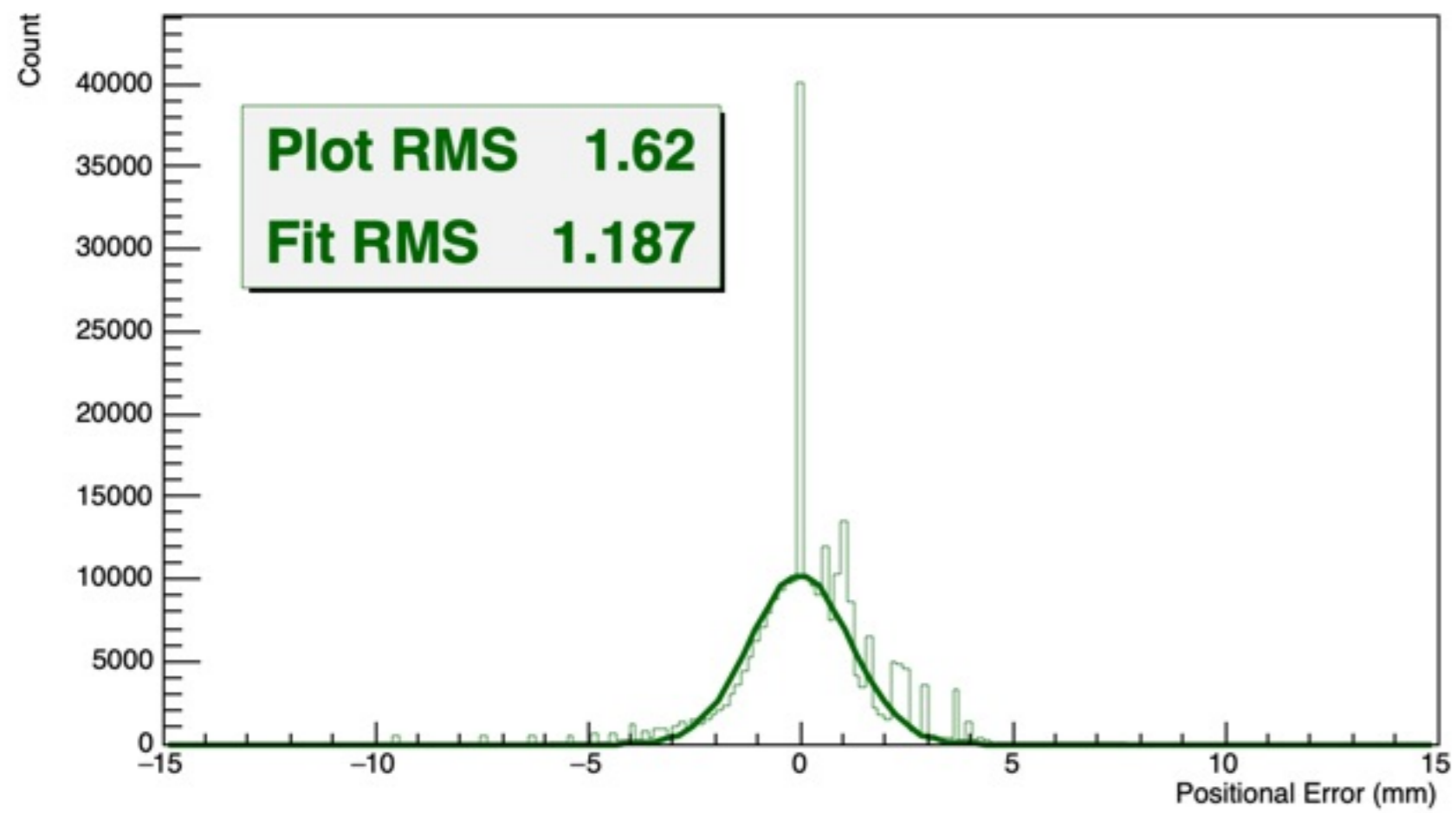
Positional Error - 150 PE/cm Yield, Z-Plane X



Z



Y-Plane X



Y

