

BBAM!

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Playing with Toys

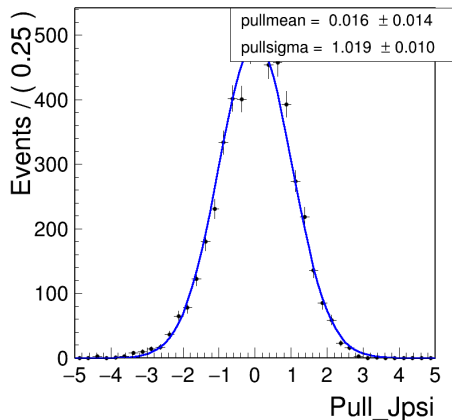
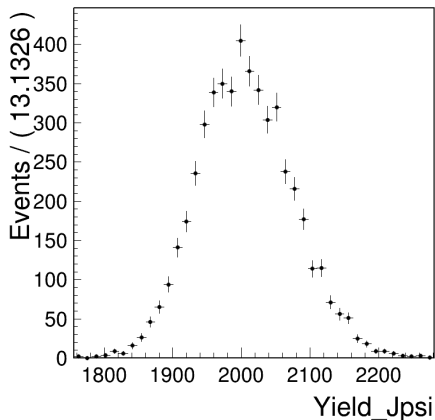
I have generated 5000 toys with 4000 events each.

Our PDF is:

$$\text{PDF} = \text{CrystalBall}(m_{\ell\ell}, \mu, \sigma, \alpha, n) + \text{Exponential}(m_{\ell\ell}, k)$$

I fit the toy and try to extract the correct # of signal and background.

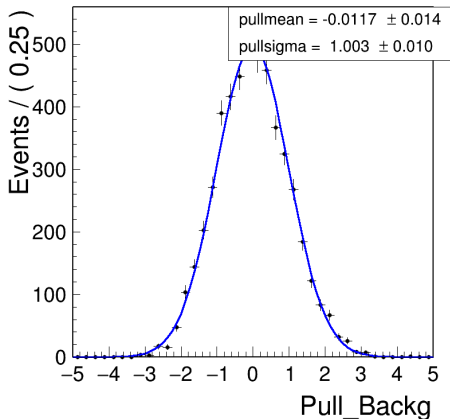
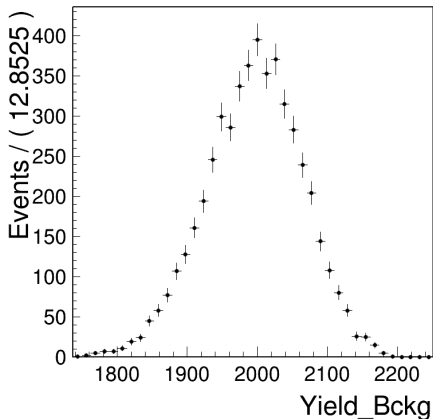
Signal Pull



Values directly from dataset:

- Mean: 0.015
- RMS: 1.021

Background Pull



Values directly from dataset:

- Mean: -0.0117
- RMS: 1.003