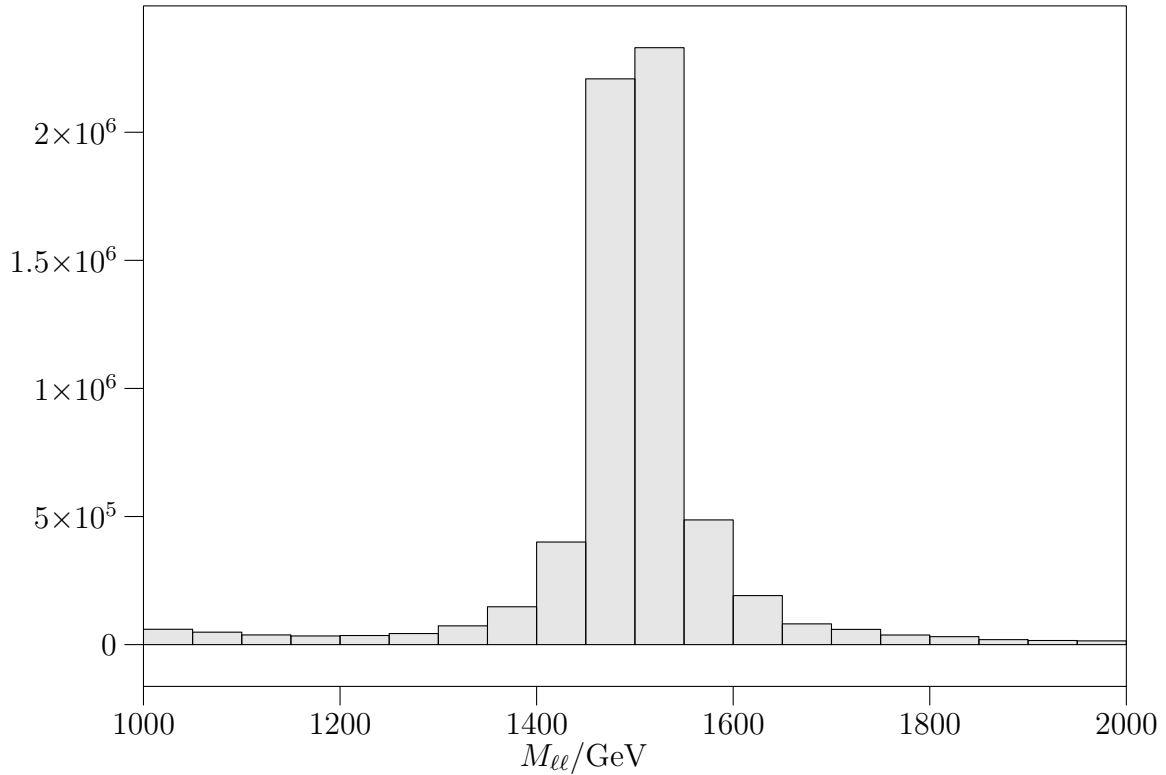


1 Z' Drell-Yan dilepton peak $pp \rightarrow \ell\ell$

A WHIZARD 2.0 Example. Cuts: $p_T^\ell \geq 50$ GeV, $M_{\ell\ell} \geq 800$ GeV, $|\eta(\ell)| \leq 2.5$
Using weighted events to produce smooth distributions.

N_{events}



Data within bounds:

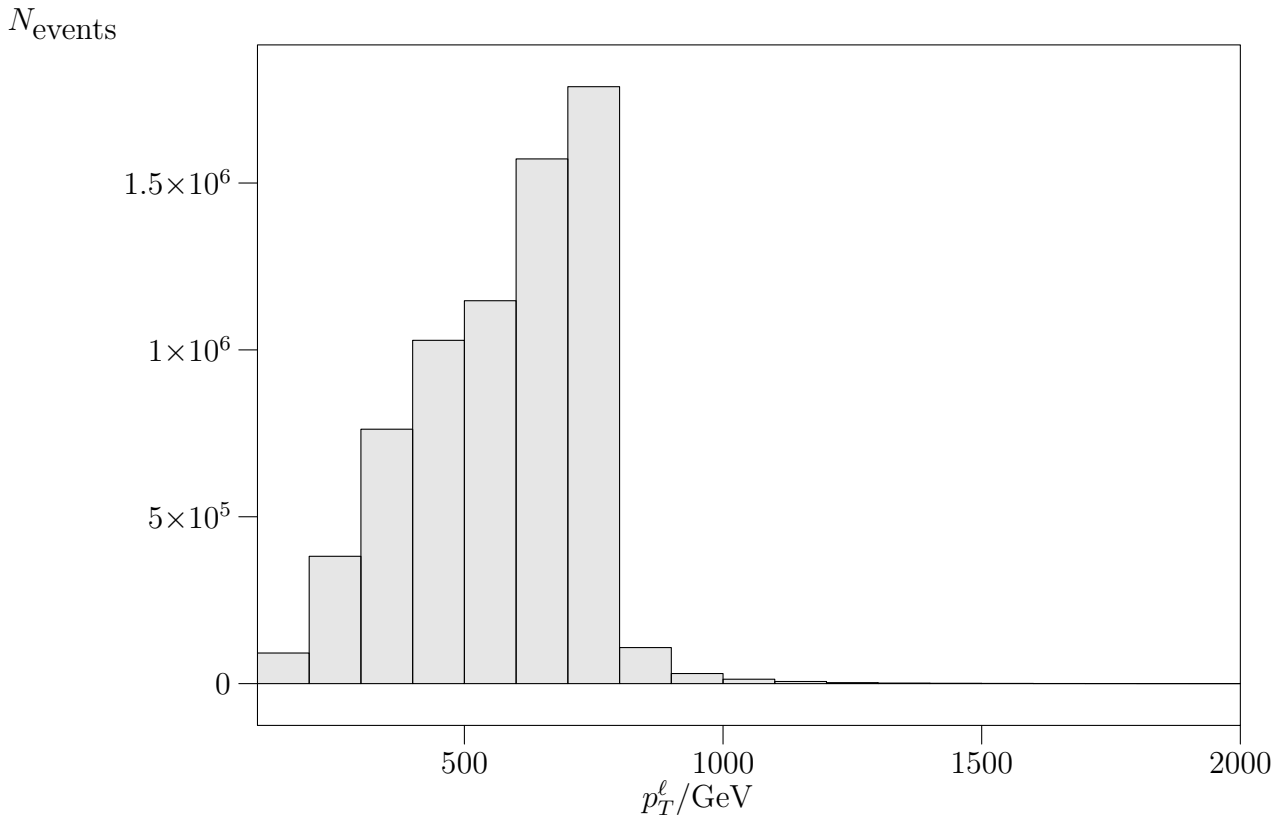
$$\langle \text{Observable} \rangle = 1.4964 \times 10^3 \pm 0.38 \quad [n_{\text{entries}} = 78917]$$

All data:

$$\langle \text{Observable} \rangle = 1.4587 \times 10^3 \pm 0.67 \quad [n_{\text{entries}} = 100000]$$

2 Z' Drell-Yan: p_T distribution of the ℓ

A WHIZARD 2.0 Example. Cuts: $p_T^\ell \geq 50$ GeV, $M_{\ell\ell} \geq 800$ GeV, $|\eta(\ell)| \leq 2.5$
Using weighted events to produce smooth distributions.



Data within bounds:

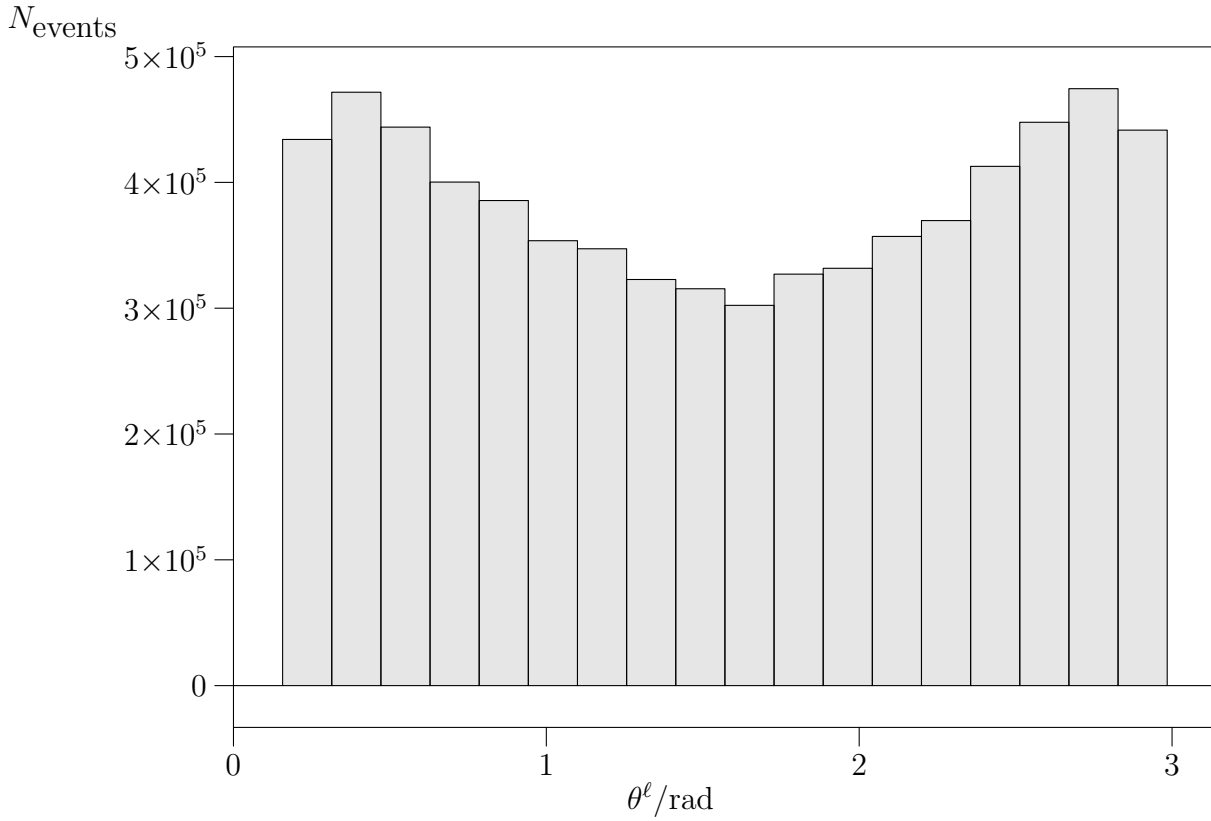
$$\langle \text{Observable} \rangle = 573.10 \pm 0.54 \quad [n_{\text{entries}} = 93126]$$

All data:

$$\langle \text{Observable} \rangle = 572.99 \pm 0.52 \quad [n_{\text{entries}} = 100000]$$

3 Z' Drell-Yan: Angular distribution of the ℓ

A WHIZARD 2.0 Example. Cuts: $p_T^\ell \geq 50$ GeV, $M_{\ell\ell} \geq 800$ GeV, $|\eta(\ell)| \leq 2.5$
Using weighted events to produce smooth distributions.



Data within bounds:

$$\langle \text{Observable} \rangle = 1.5728 \pm 0.0027 \quad [n_{\text{entries}} = 100000]$$

All data:

$$\langle \text{Observable} \rangle = 1.5728 \pm 0.0027 \quad [n_{\text{entries}} = 100000]$$