

Jet smearing - parametrizations

UHH-CMS SUSY Meeting

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GEFÖRDERT VOM

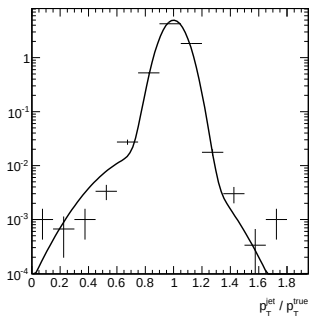


Bundesministerium
für Bildung
und Forschung

Fitted response: Three Gaussians

- Generation of dijet and γ -jet events
- Response from Summer08 dijet sample with $600 < \hat{p}_T < 800$ GeV
- Response probability density

$$p(x) = (1 - (c_1 + c_2)) \cdot G(1, \sigma_0) + \sum_{i=1}^2 c_i \cdot G(\mu_i, \sigma_i)$$

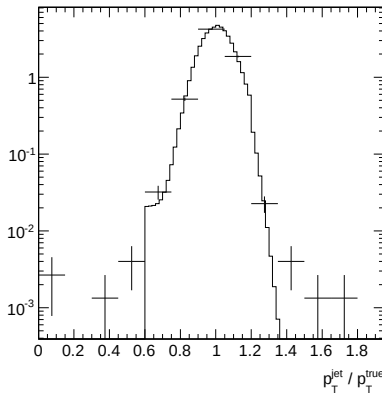


Fitted response: Gauss + Histogram (γ -jet)

- Response probability density

$$p(x) = c \cdot G(1, \sigma) + (1 - c) \cdot H_{\text{nbins}=10}(b_i)$$

- Require $0 \leq c \leq 1$ and $b_i \geq 0$



Fitted response: Gauss + Histogram (γ -jet)

- Additionally **penalty term** in Likelihood: for $b < 0$: $L \rightarrow L - b$
- In right plot: TH1D::Interpolate

