

jet to e background data-driven estimate

regions definition:

A: Tight ID, FCTight iso

B: Tight ID, FCLoose iso

C: LooseBL ID (non-Tight), FCTight iso (non-FCTight)

D : LooseBL ID (non-Tight), FCLoose iso (non-FCTight)

$$R = A \cdot D / B \cdot C$$

if $R=1 \Rightarrow A \text{ est.} = B \cdot C / D$, else $A \text{ est.} = R \cdot B \cdot C / D$

MC jet to e prediction

(Znuu+multijet):

A 12 ± 2

B 20 ± 17

C 1101 ± 1045

D 71 ± 19

R MC: 0.03 ± 0.03

if we remove
multijet

MC Znuu prediction:

A 11 ± 2

B 11 ± 2

C 29 ± 3

D 51 ± 4

R Znuu MC: 1.7 ± 0.4

Regions after MC bkg subtraction:

B 19 ± 7

C 114 ± 19

D 78 ± 10

rough jet to e bkg estimation in A
region: $R \cdot 27 \pm 12$ (MC 12 ± 2)

decreasing MET cut from 120
GeV down to 100 GeV shows
no difference stat. difference

rough estimate: 46 events
highest estimate: 57 events
lowest estimate: 35 events
No significant impact on the distributions!

MET&isolation ABCD possibility

