

$$60(72) < m_{qq} < 100(90) \text{ GeV}$$

$$30 < m_{qq} < 60(72) \text{ GeV}$$

or

$$100(90) < m_{qq} < 250 \text{ GeV}$$

2 b tags

training region (TR)

validation region (VR-TR)

≥ 4 loose b tags

QCD events for ANN training

input variable validation

3 b tags

evaluation region (ER)

validation region (VR-ER)

≥ 4 loose b tags

discriminant shape for QCD

discriminant shape for QCD

≥ 4 b tags

signal region (SR)

validation region (VR-SR)

analysis region

comparison of QCD shape with data