

# BDT update



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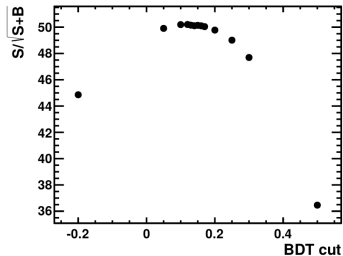
$B^0 \rightarrow K^* \mu^- \mu^+$  meeting, CERN  
October 25, 2017

## BDT optimization - bug found:

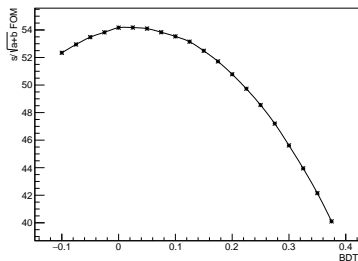
⇒: There was a typo:

BDT < X instead of BDT > X  
when scanning the BDT cut

# BDT optimization - optimization



⇒ We selected the  $BDT > 0.2$  to be on the safe side.

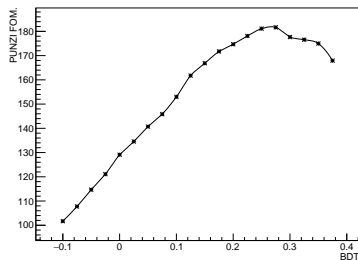


⇒ Following the same principle we should now select:  $BDT > 0.1$

# BDT optimization - optimization Punzi

⇒ Punzi FOM:

$$\text{FOM} = \frac{s}{a/2 + \sqrt{b}} \quad (1)$$



⇒  $a = 3$

⇒ Gives different answer but this is expected.

⇒ Stick to the previous optimization method.

