Cut efficiencies and optimal cut value Signal purity Signal efficiency Signal efficiency*purity Background efficiency $S/\#sqrt\{S+B\}$ Efficiency (Purity) 3.5 8.0 2.5 0.6 0.4 0.2 For 60 signal and 29383 background events the maximum S/\S+B is 0.5 3.8714 when cutting at 0.1371 0 0.1 0.2 -0.5 -0.4-0.3-0.2-0.10

Cut value applied on BDT output