## Cut efficiencies and optimal cut value Signal purity Signal efficiency Signal efficiency\*purity Background efficiency $S/\#sqrt\{S+B\}$ Efficiency (Purity) 8.0 0.6 0.4 0.2 For 33 signal and 22285 background events the maximum S/VS+B is. 2.6053 when cutting at 0.1391 0 0.2 -0.5-0.4-0.3 -0.2-0.10.1 -0.6 0 Cut value applied on BDT output