## Cut efficiencies and optimal cut value Signal purity Signal efficiency Signal efficiency\*purity **Background efficiency** S/\S+B Efficiency (Purity) 8.0 6 0.6 0.4 For 100 signal and 1000 background 0.2 events the maximum S/VS+B is 9.37 when cutting at 0.06 0 -0.4-0.3-0.2-0.10.1 0.2 Cut value applied on BDT output