HZ->bbμτ

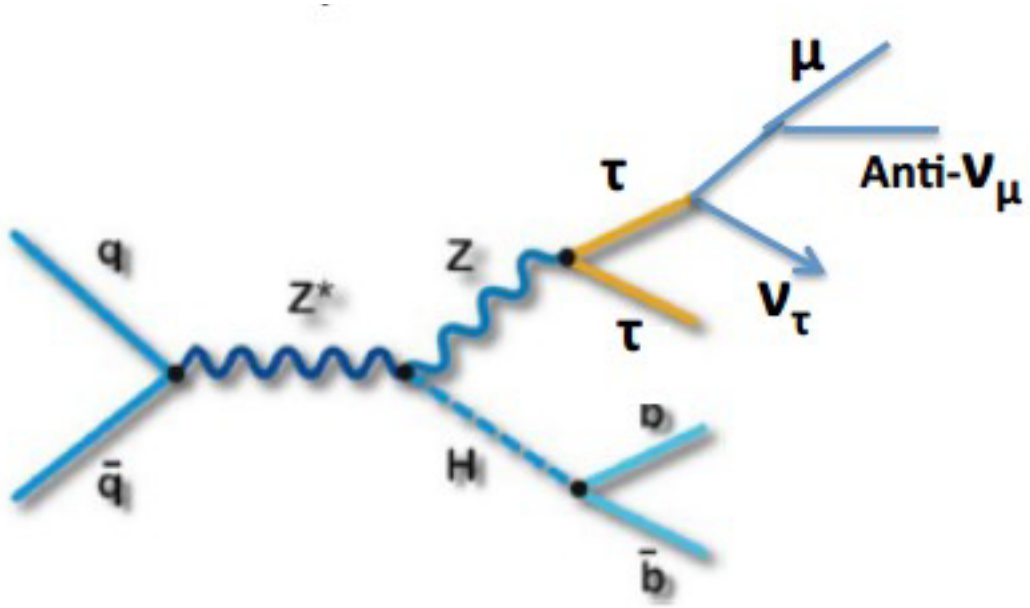
(a BDT attempt)

(very preliminary)

KU-UNL Hbb meeting
October 3, 2012

Suvadeep Bose

Introduction

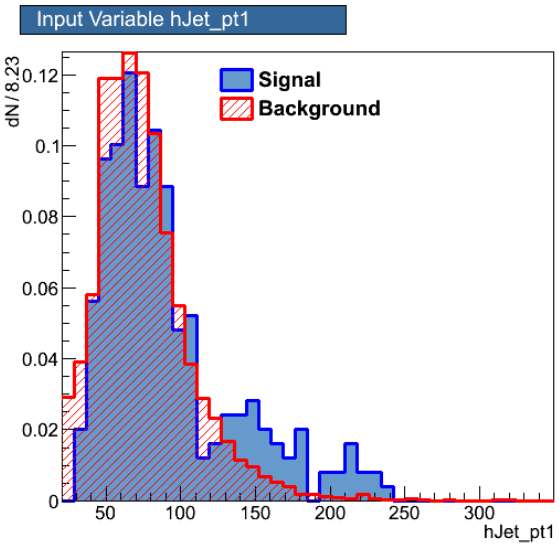


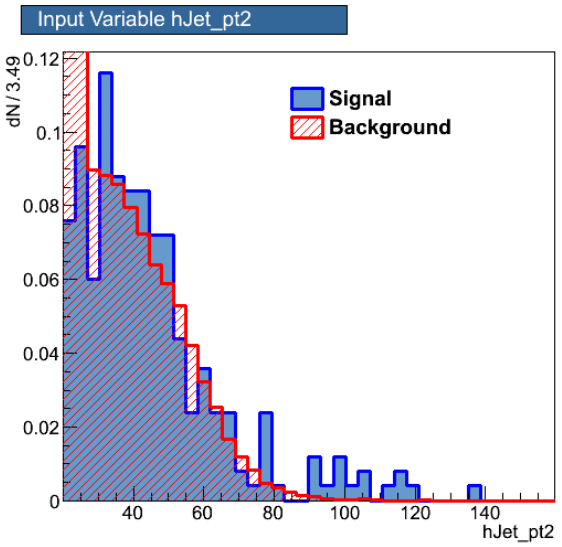
- Various technicalties:
- – One τ, one μ veto;
- – Vtype 7.

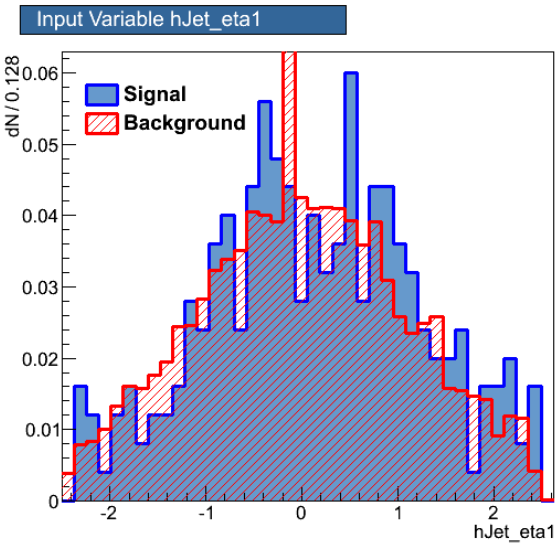
Event selection and datasets

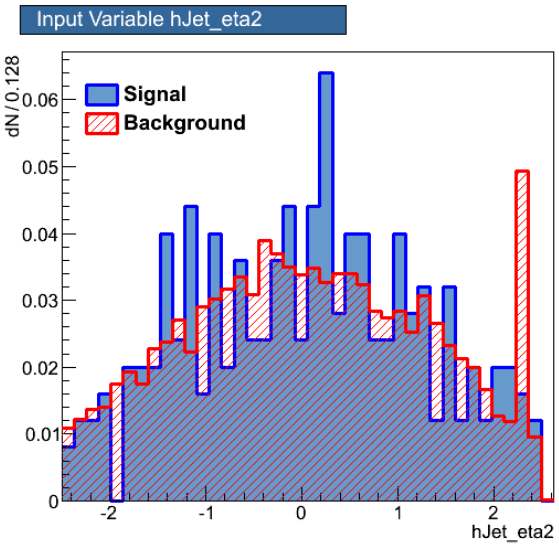
- CMSSW_6_0_0_pre11, ROOT v5.34, TMVA v4.1.3
- 7 TeV MC Samples (Higgs mass is 115)
- Trying to use all variables listed in Helena's cut and cunt analysis for the training
- **Event Selections:**
- One muon with pT > 20 and |η| < 2.4;
- One tau that passes tauID with ΔR(tau, jet) > 0.2 and pT > 17. GeV and |η| < 2.3;
- 2 jets that pass jetID with pT > 20 and |η| < 2.5;
- No additional leptons;
- dijet_mass >80 && dijet_mass < 150;
- H_pt > 80;
- ~~CSV1 > 0.679 && CSV2 > 0.244~~; CSV1 > 0.244 && CSV2 > 0.244;
- fabs(tau_acop) < 2.;
- ΔR(tau, mu) < 1.8;

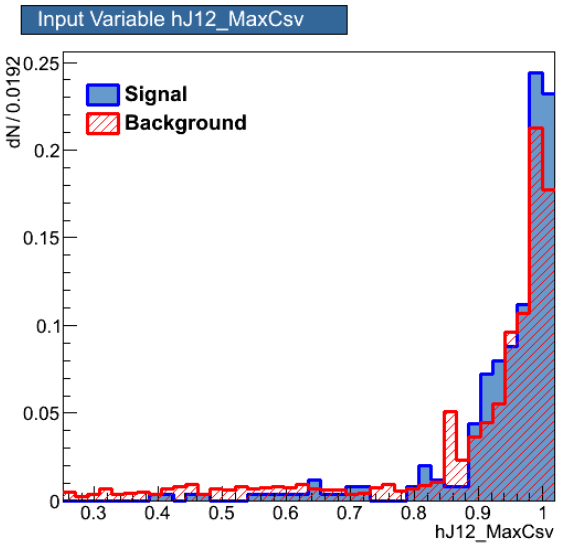
BDT variables

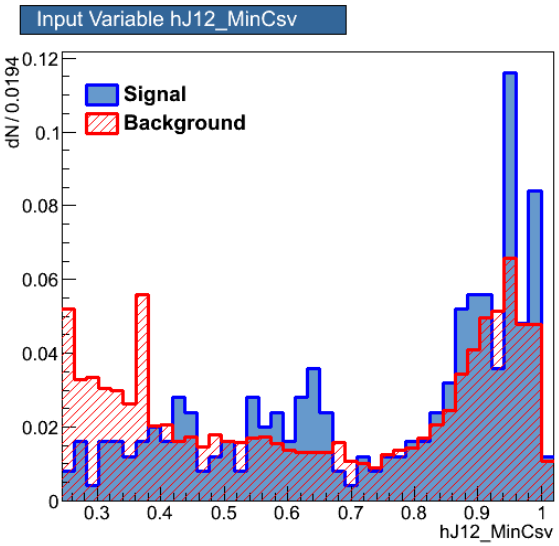




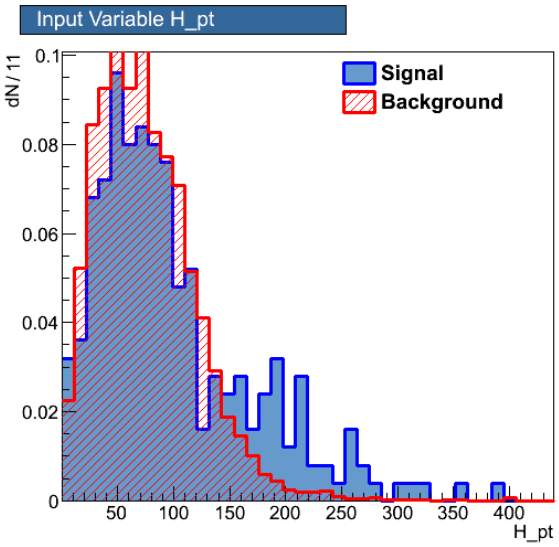


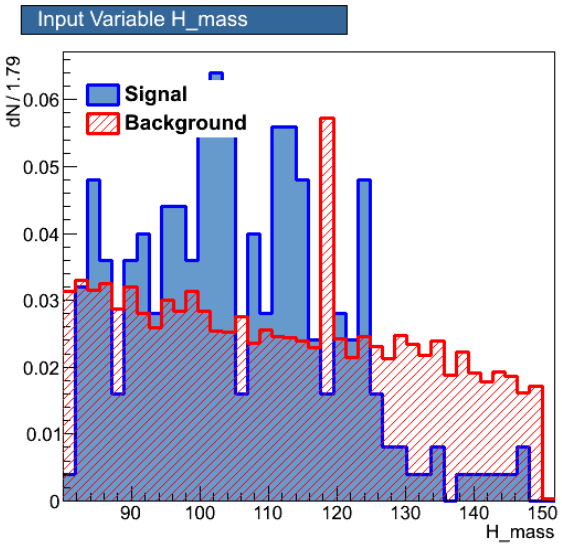


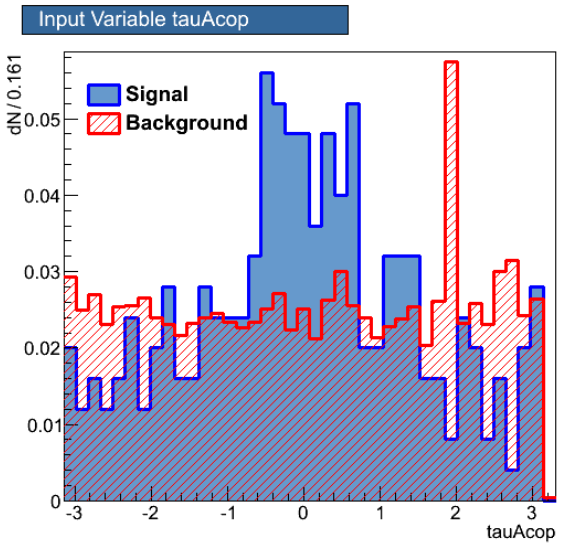


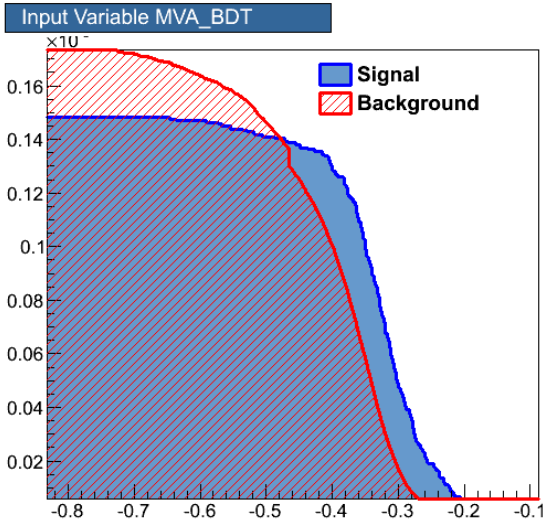


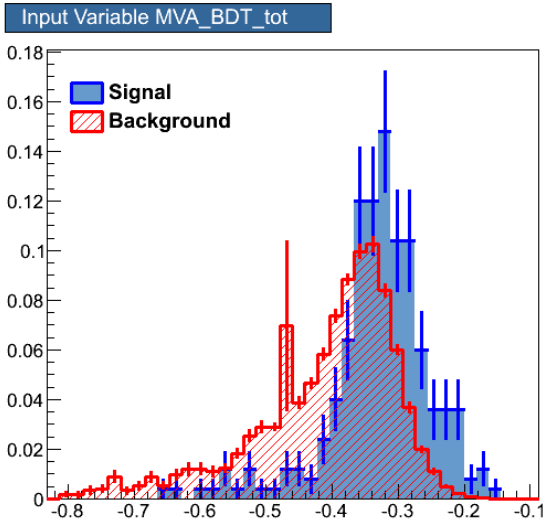
BDT variables (2)











Just a starting point, None of these plots should be considered seriously