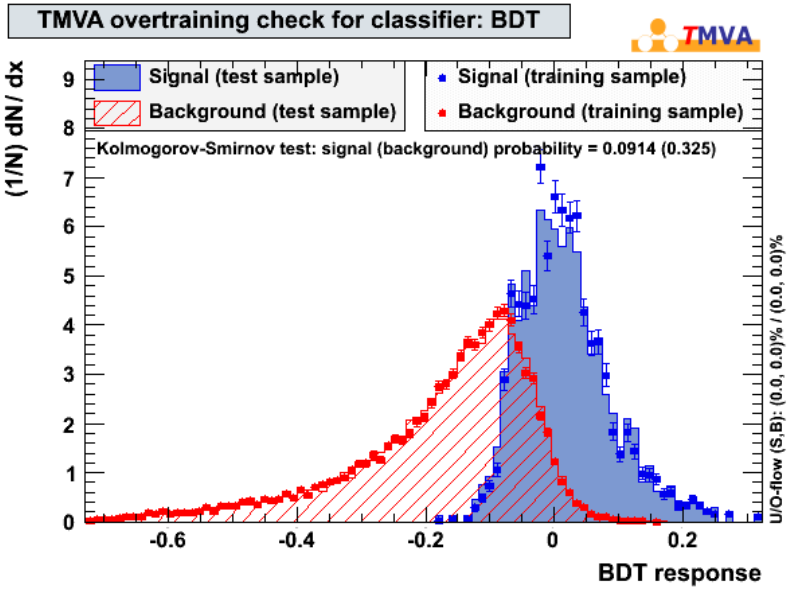
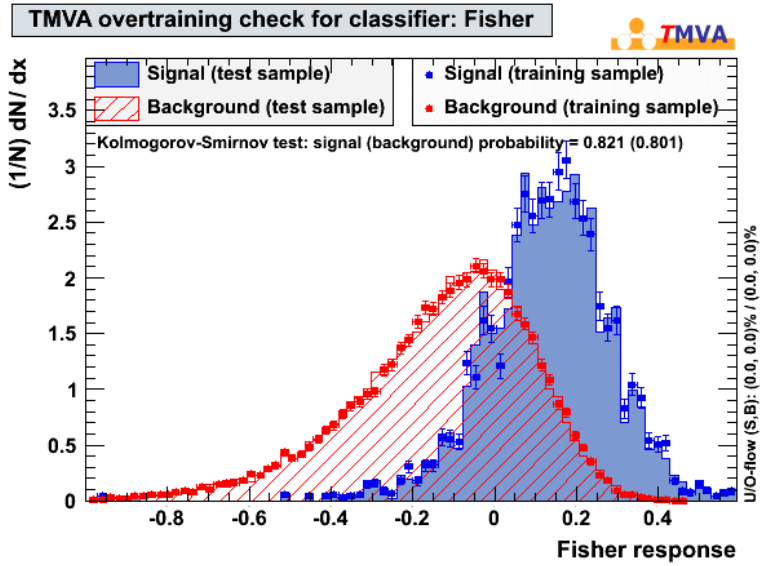
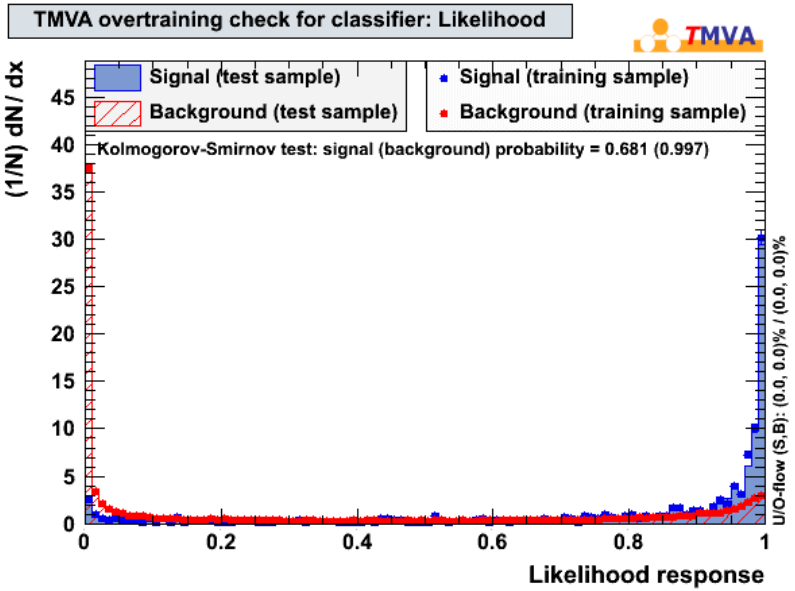
some checks

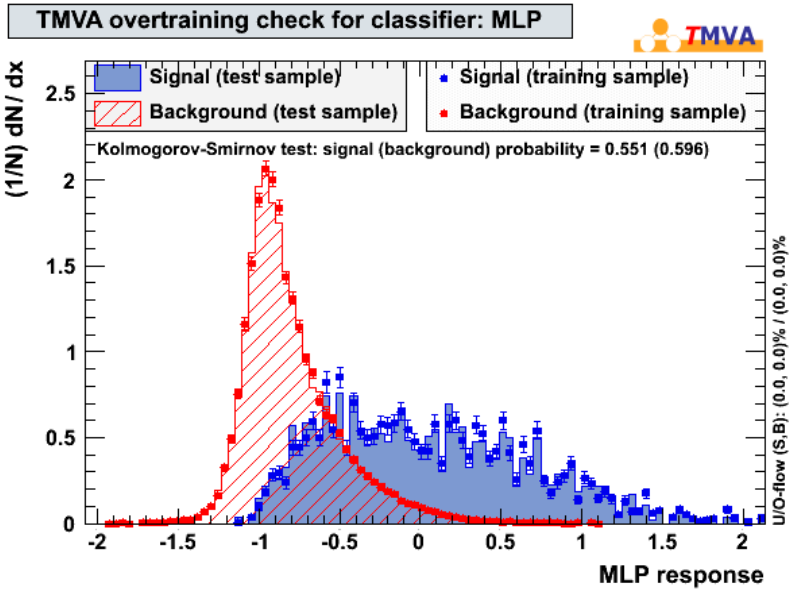
- Check that after the training, when running over the signal and background files used for this training, we obtain the same distribution
- Background training : day 113, like signs
- Signal training : single D^0 ,K^-pi^+
- Classifiers : BDT, MLP, fisher, Likelihood

Mva responses after training



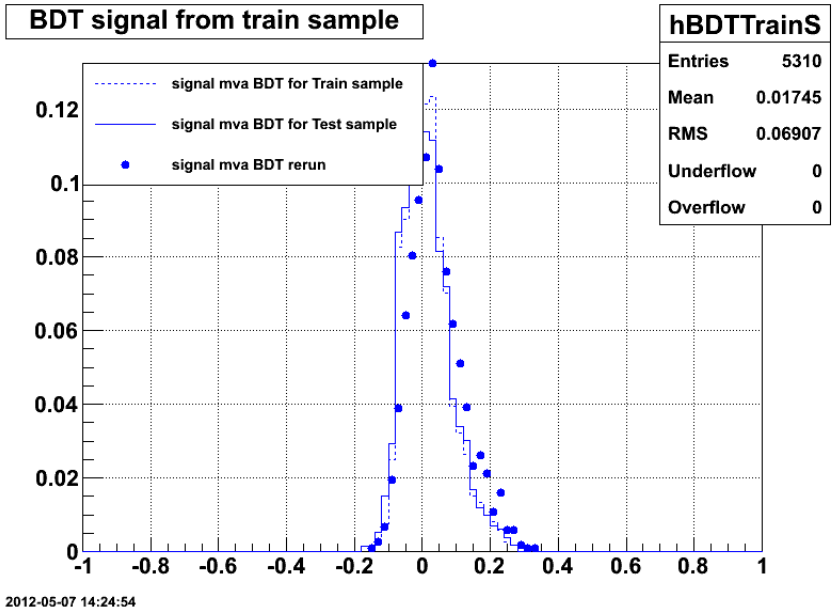




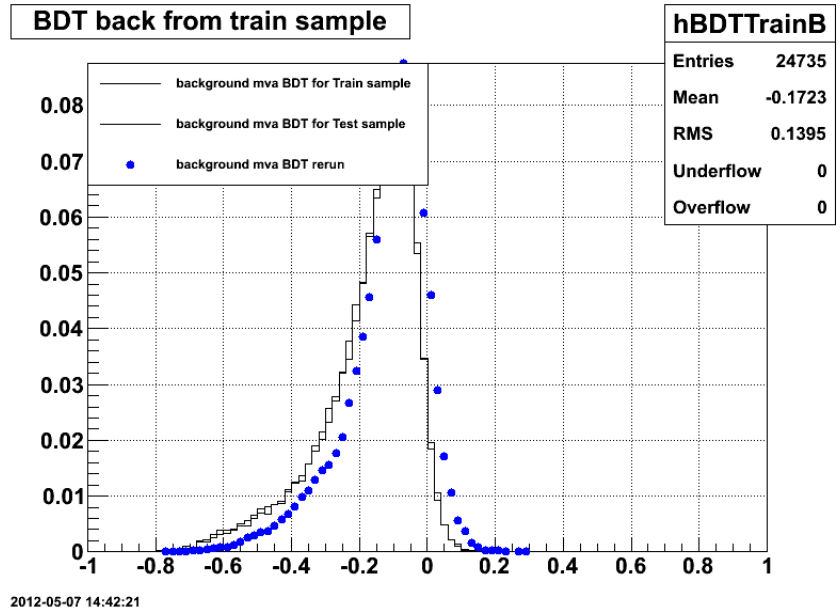


Mva BDT

signal

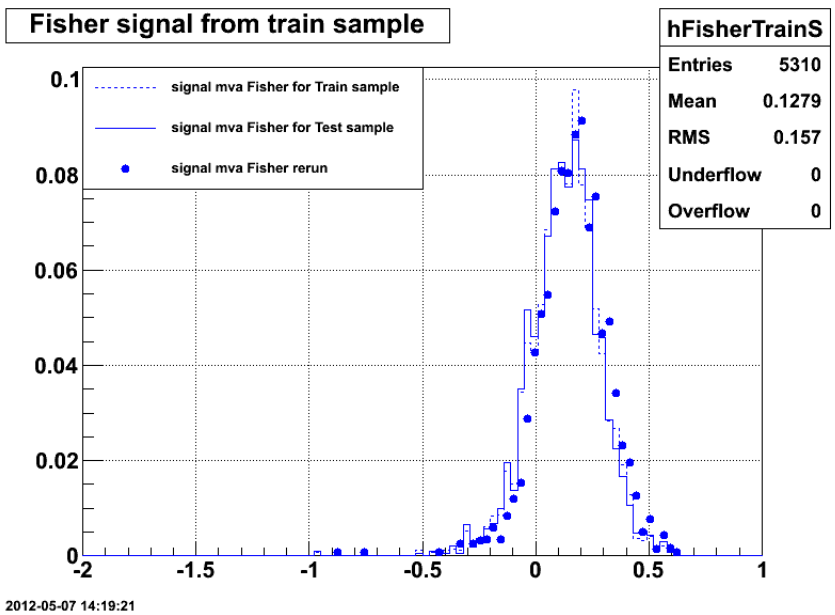


background

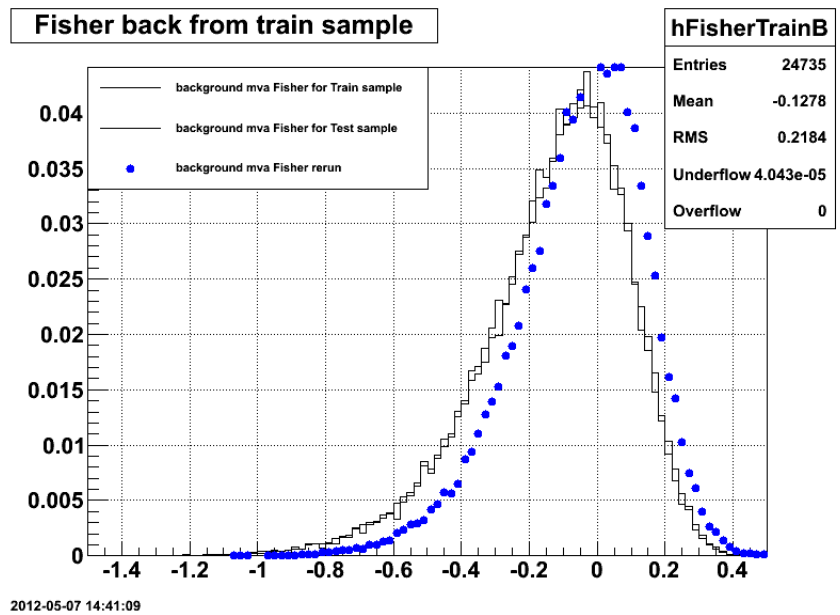


Mva fisher

signal

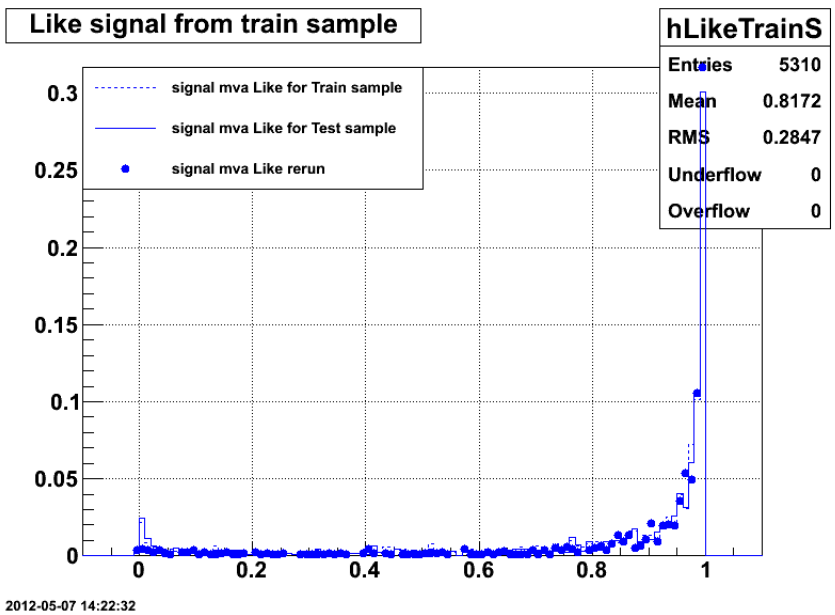


background

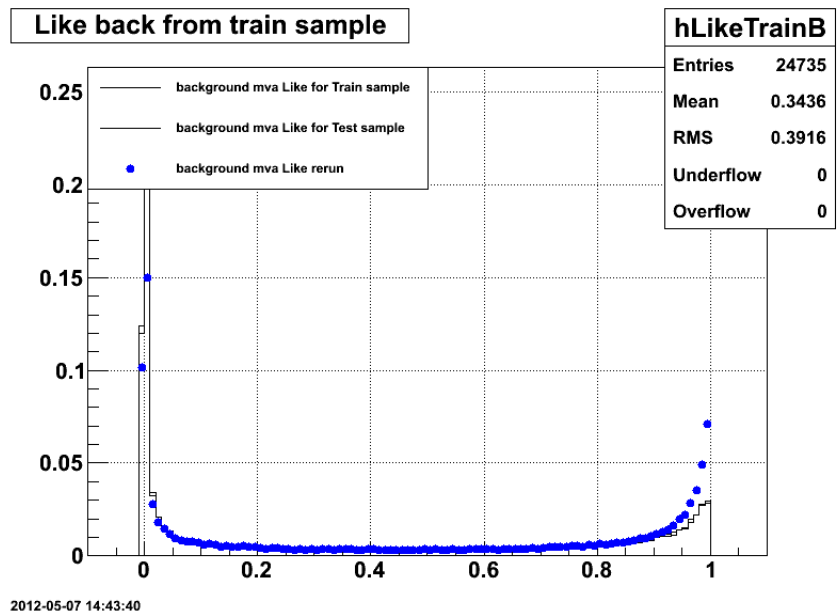


Mva Likelihood

signal

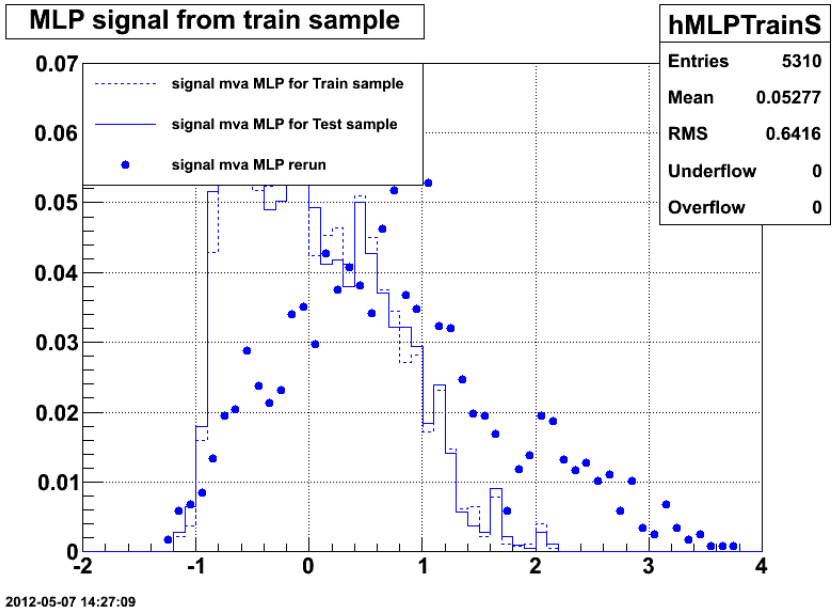


background

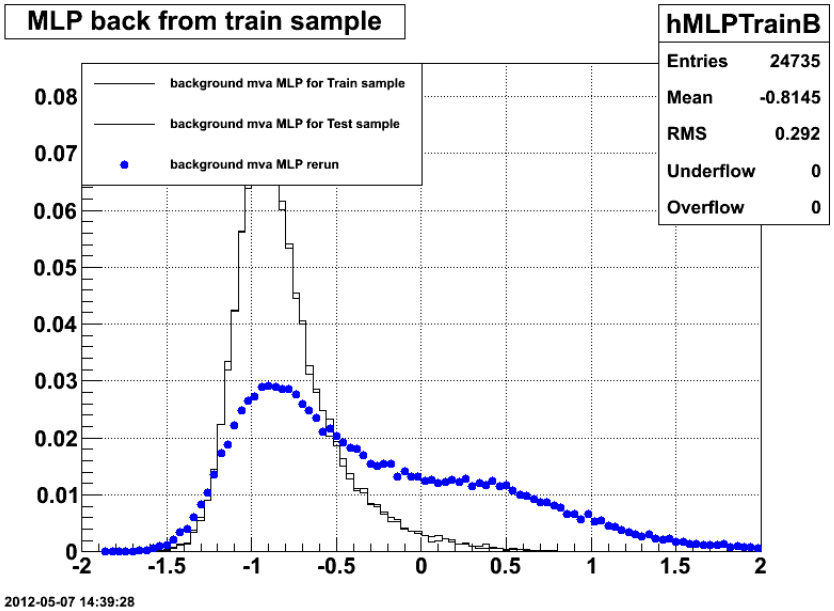


Mva MLP

signal



background



comments

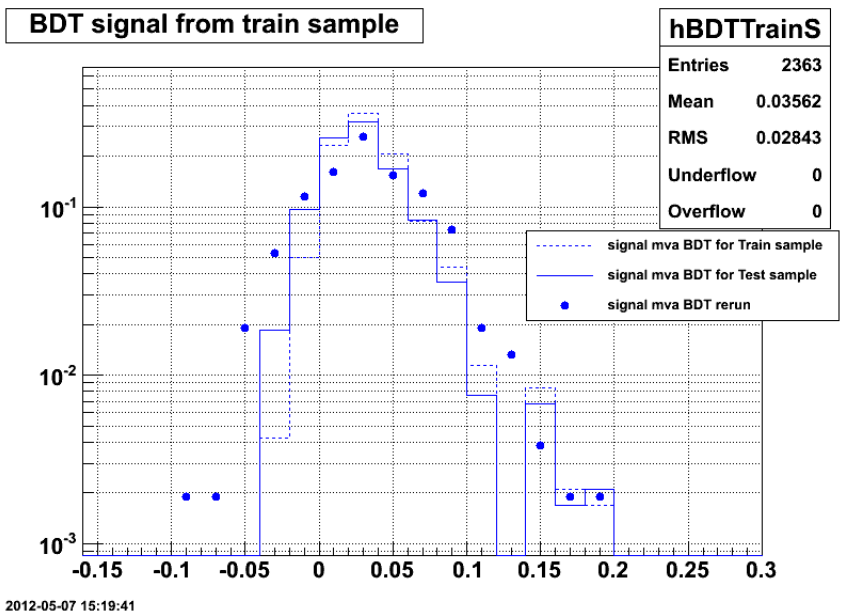
- BDT, Fisher, Likelihod :
  - despite slight differences between the distributions after training and rerunning after the training, both signal and background match reasonably
  - A possible reason : the sample size used for training/test is not the same ; there is an internal random choice of the training/test sample that gives a size < than the original root file
- MLP :
  - Both signal and background are off

- PtD0 variable is added to the training
- Cut applied with PtD0<1
- Same cut is applied when rerunning after training

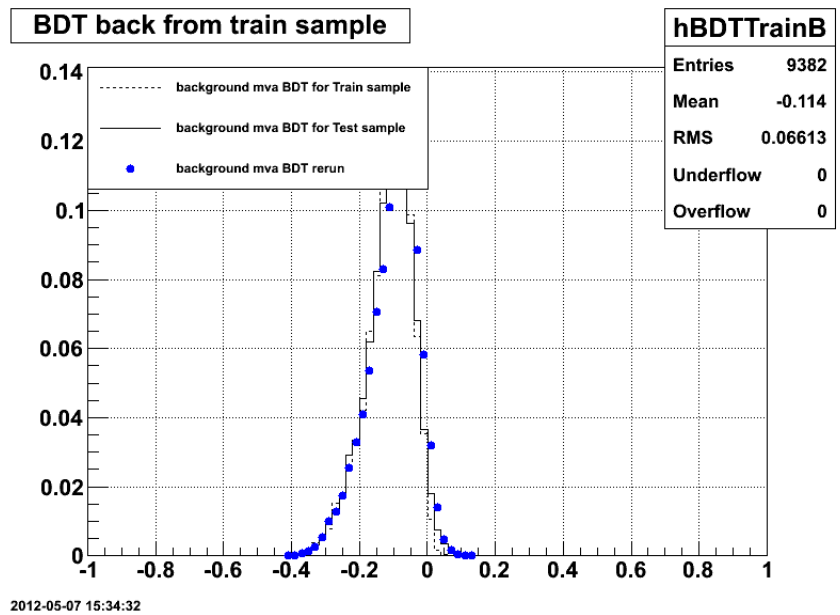
INCLUDING PT BINS

Mva BDT

signal

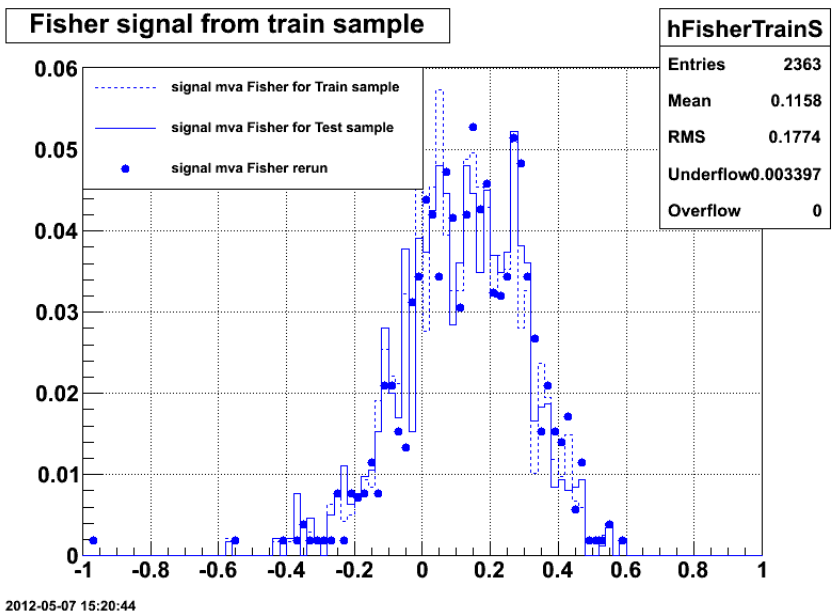


background

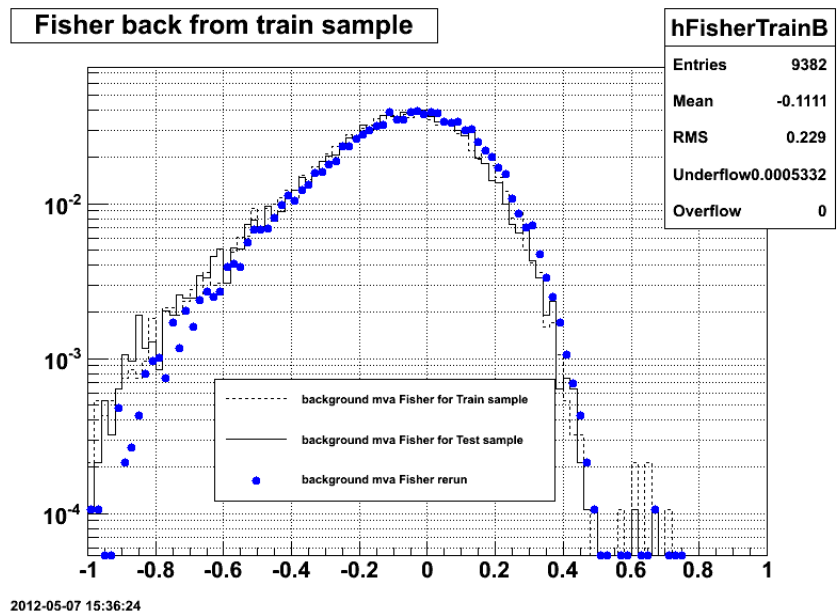


Mva Fisher

signal

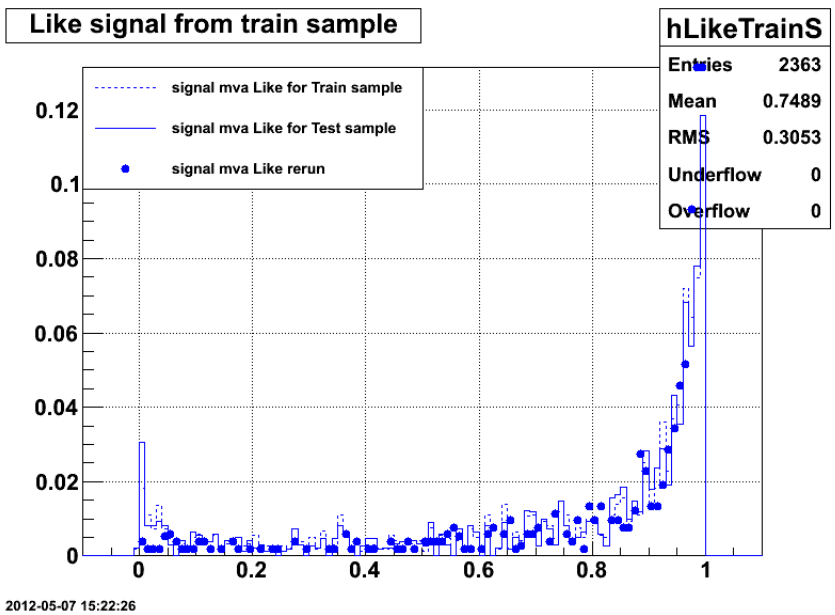


background

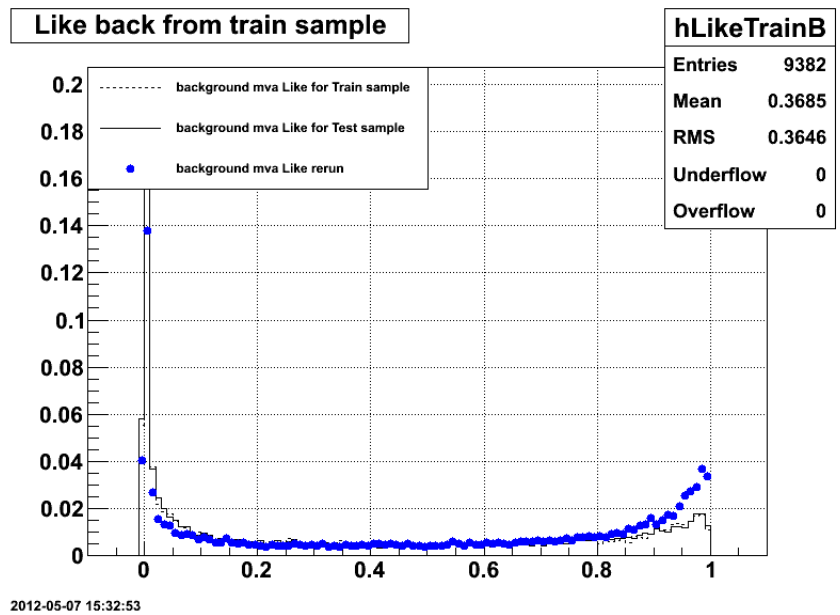


Mva Likelihood

signal

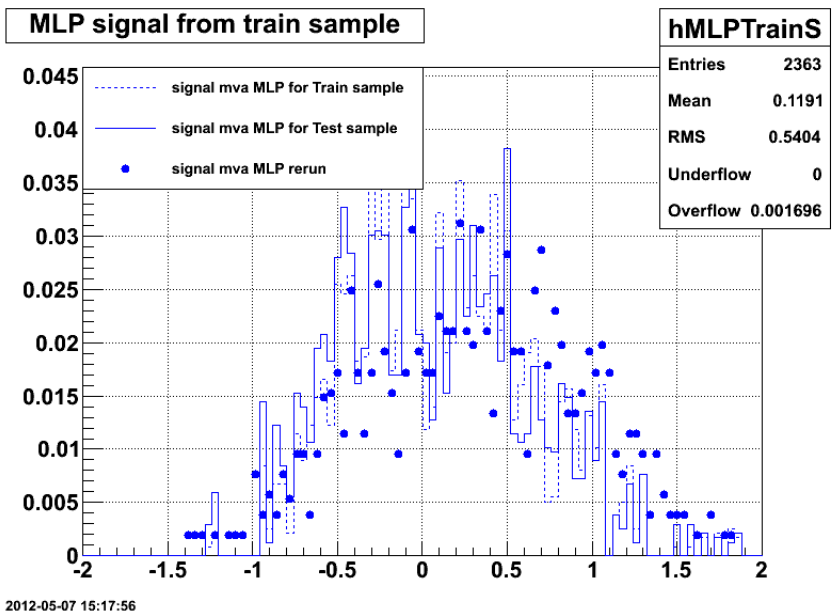


background

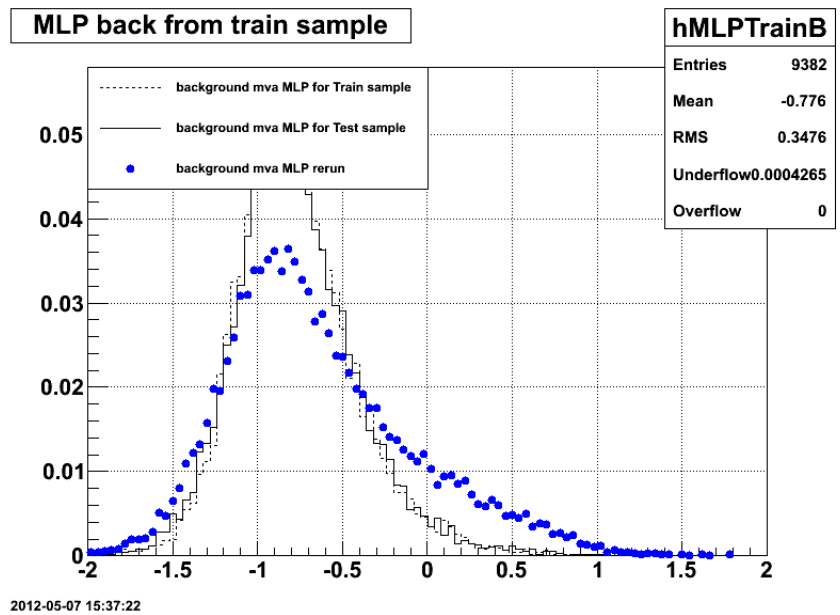


Mva MLP

signal

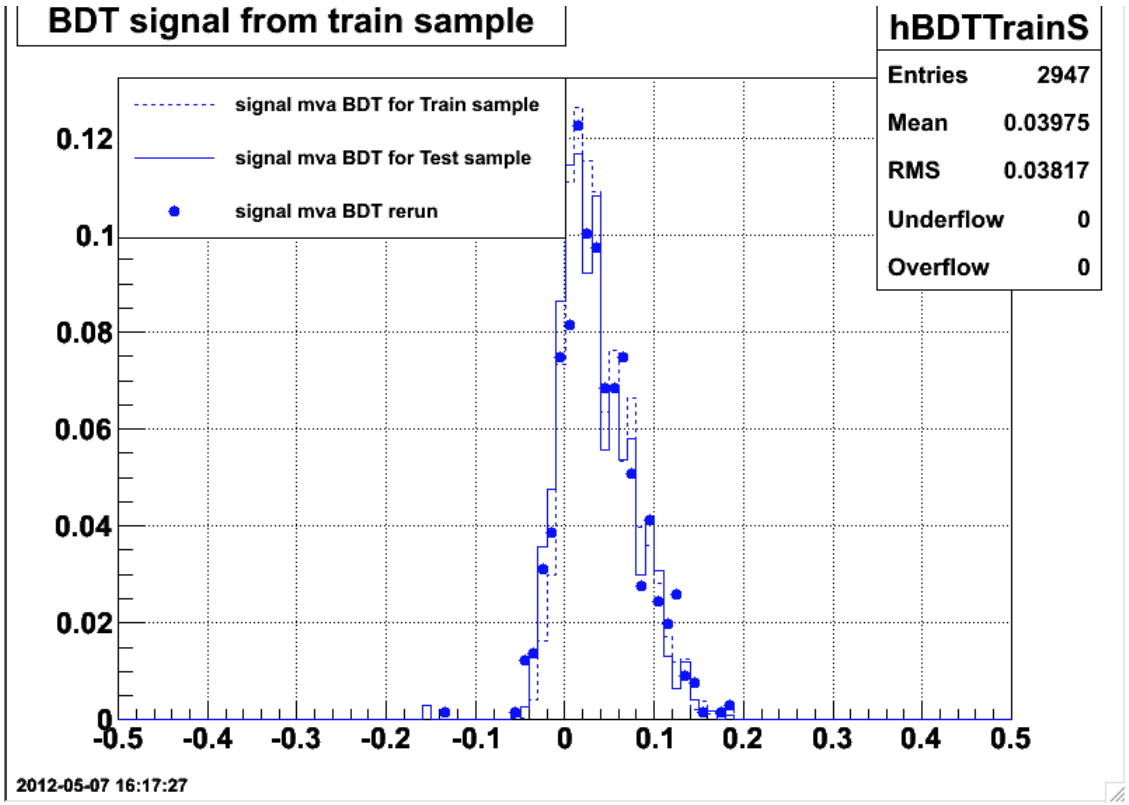


background

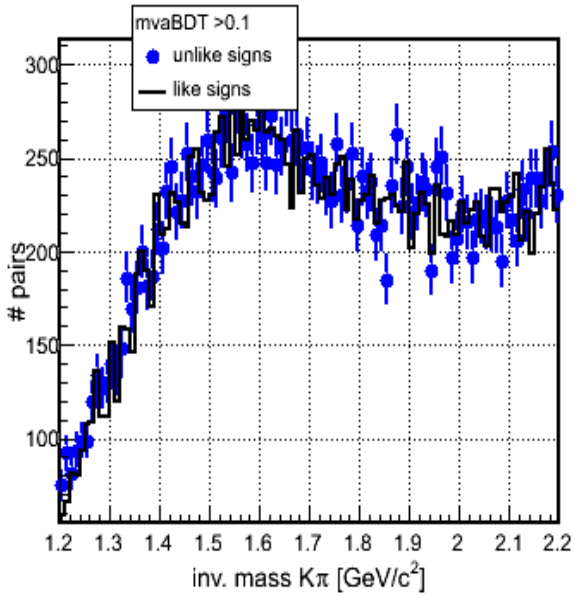


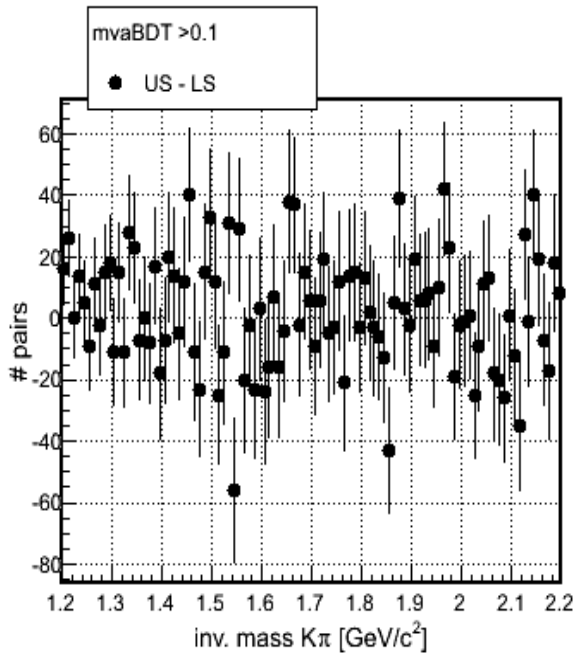
comments

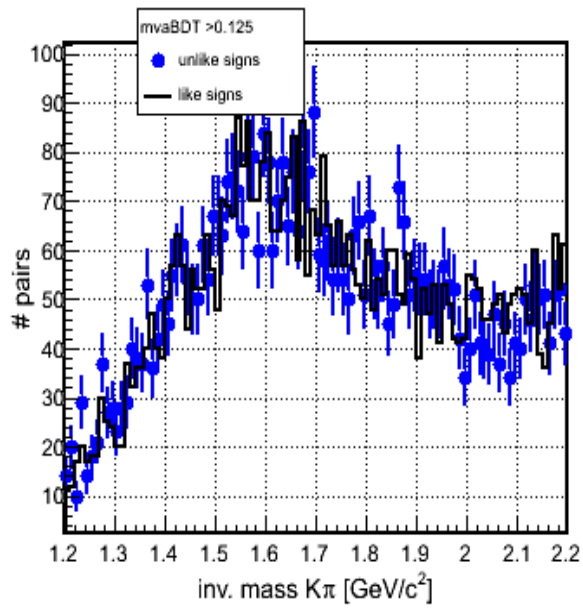
- Same as for the no pt bin cut
- For fisher and BDT, the agreement seems even better
- The same (good agreement) is seen when the cut is Ptd0>1 (see plot right, when rerunning over the signal sample)

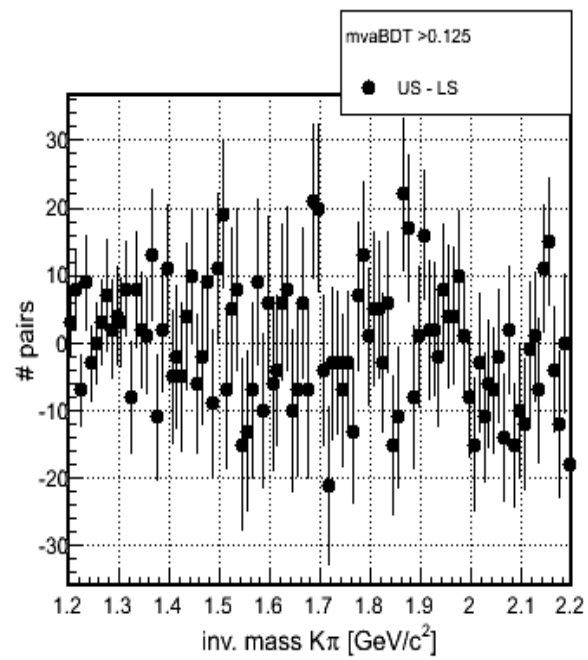


Rerun real data : day130-139









To test

- Add spectator variable for Pt bin
- Add another background tree :
  - From the single D0, there is the crossfeed (K+pi-) that can be used as another background
- I asked the TMVA people : the fact that I don't get the same distribution after training and when reading the training (for MLP) might be because of the version of TMVA (4.0.3)
  - It should be fixed in the recent version