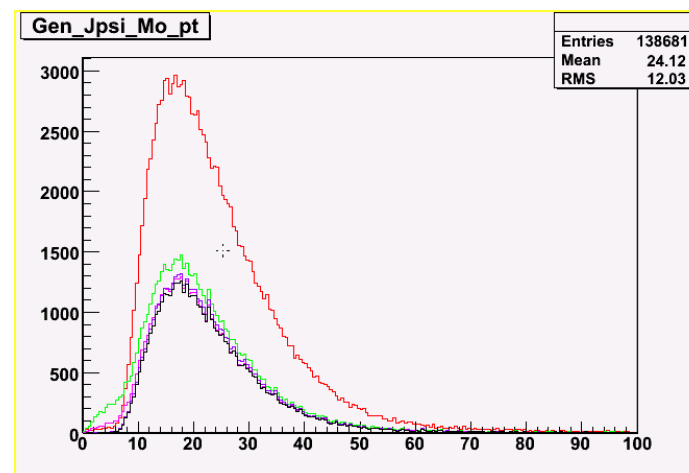
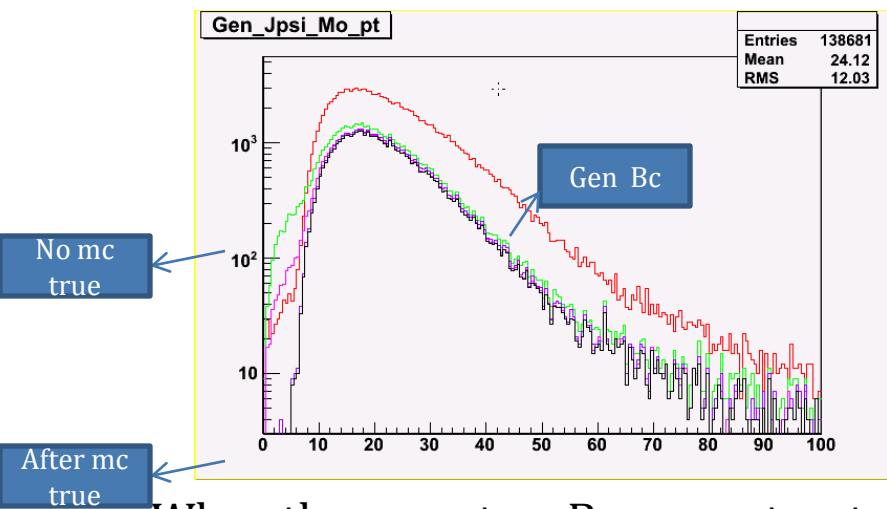
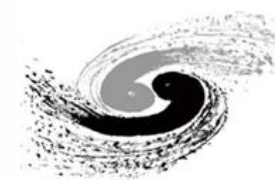


$B_c \rightarrow J/\psi \mu \mu$ analysis

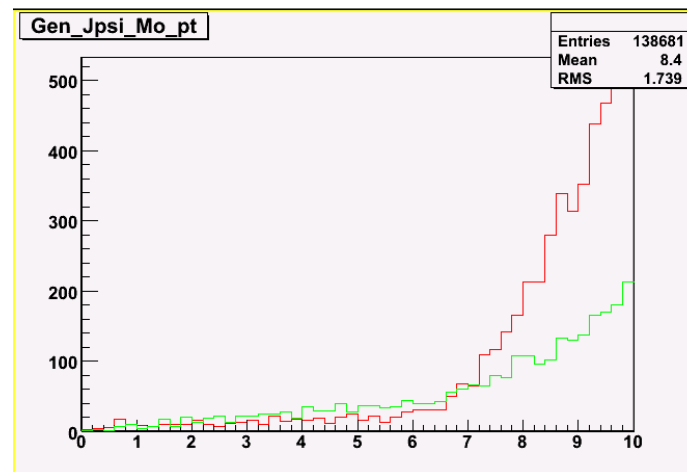
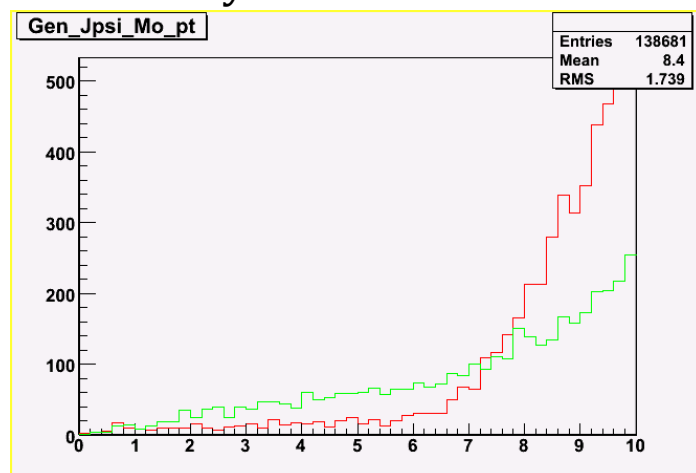
Xianyou Wang, Guoming Chen, Xiangwei Meng,
Junquan Tao, Jianguo Bian, Zheng Wang, Jian Wang

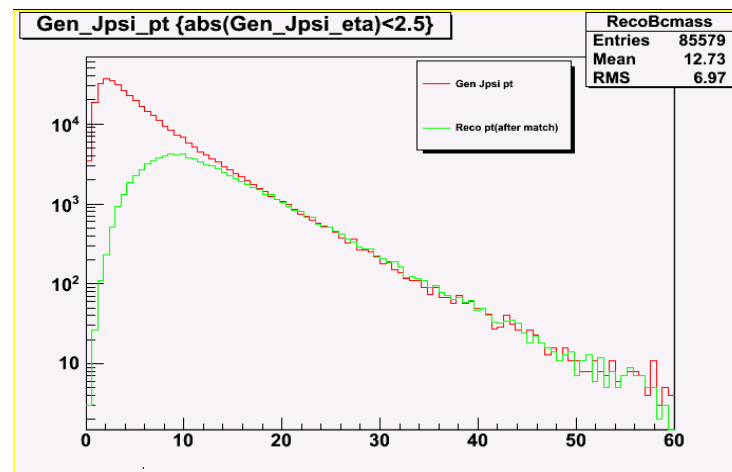
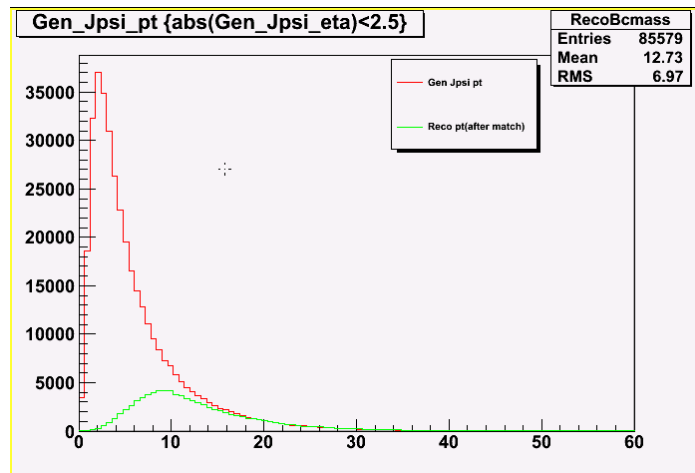
Institute of High Energy Physics, CAS, Beijing
Institute of theoretical physics, CQU, CQ

MC True Match

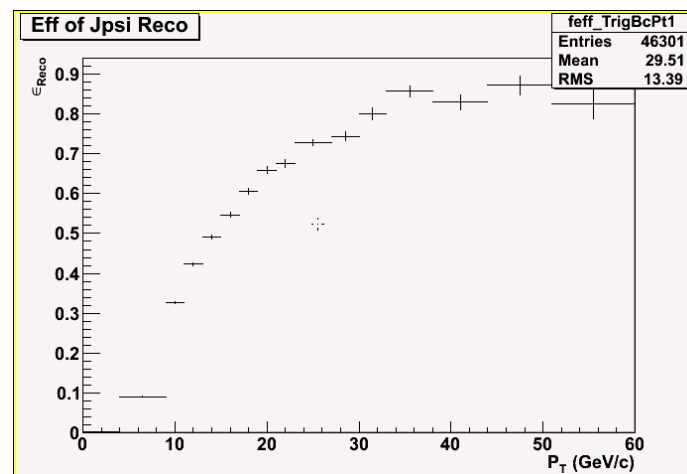


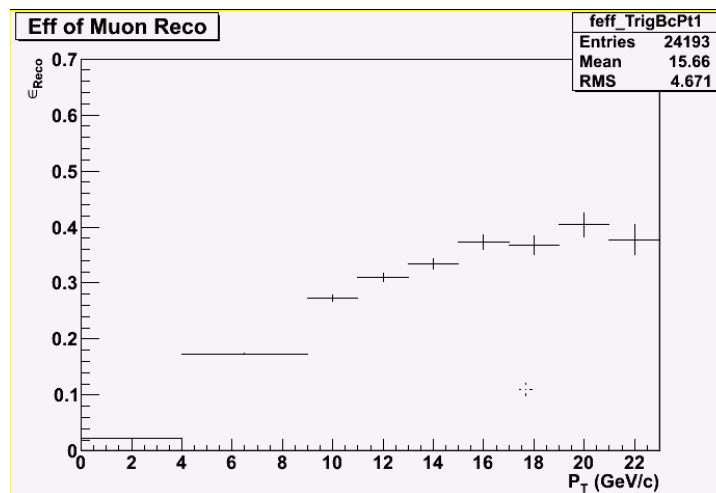
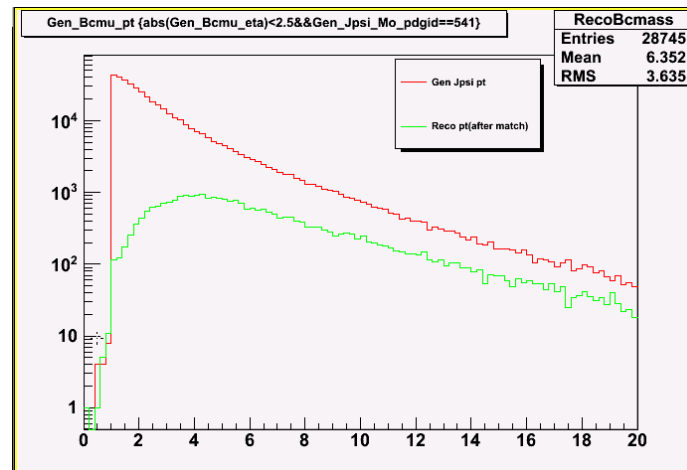
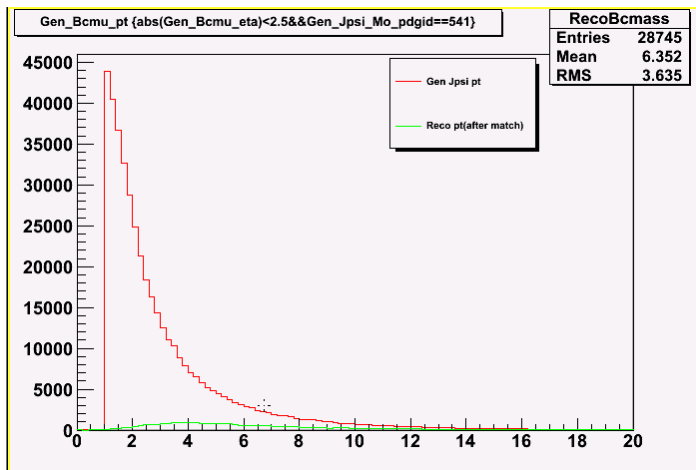
When there are two Bc reconstructed,
Just select only one Bc reconstructed.



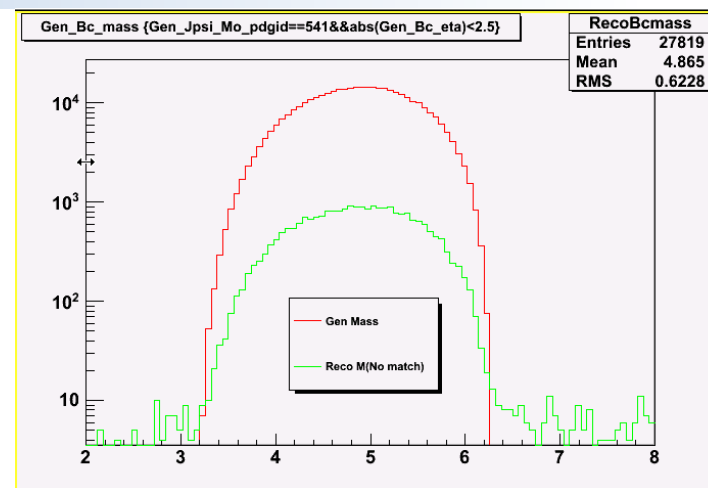
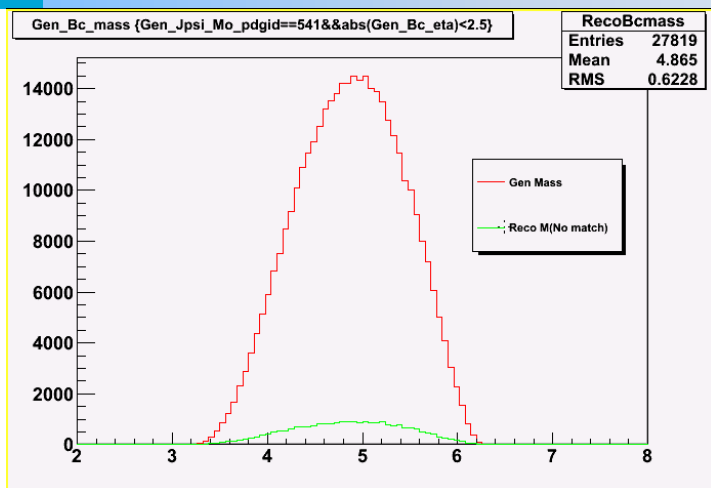
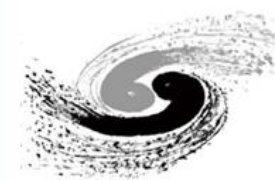


Jpsi pt

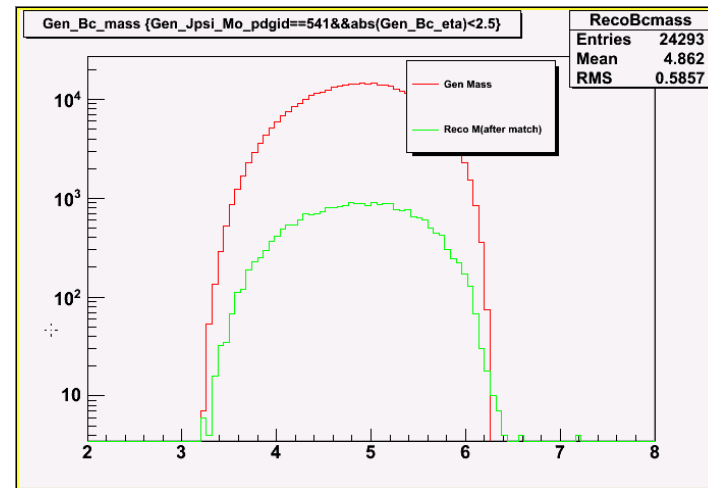
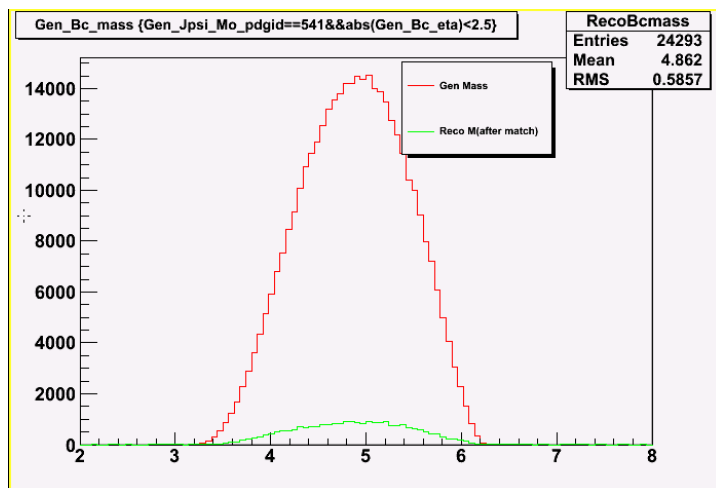




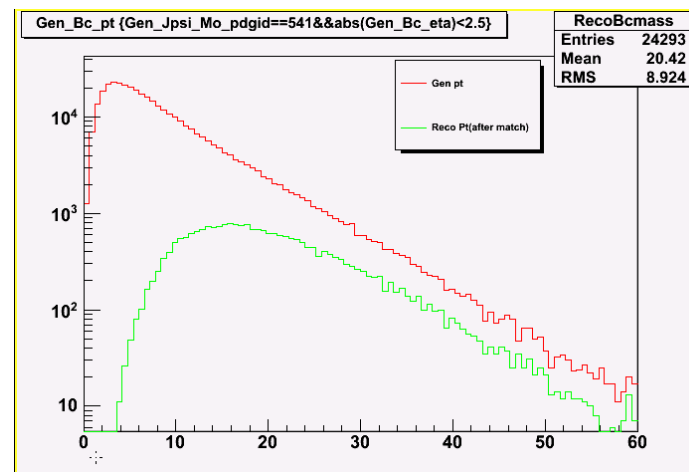
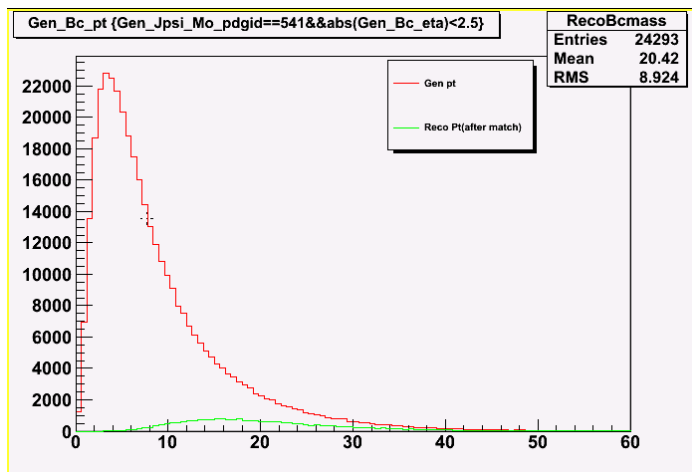
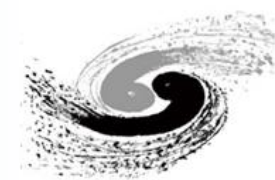
Muon pt



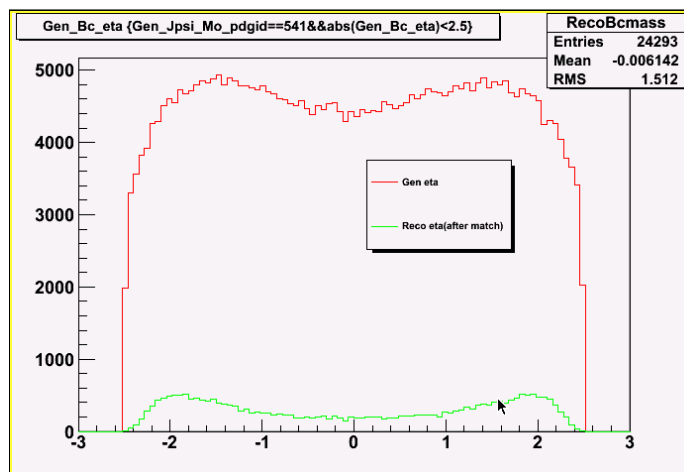
Jpsi+Muon Mass(no MC True match)

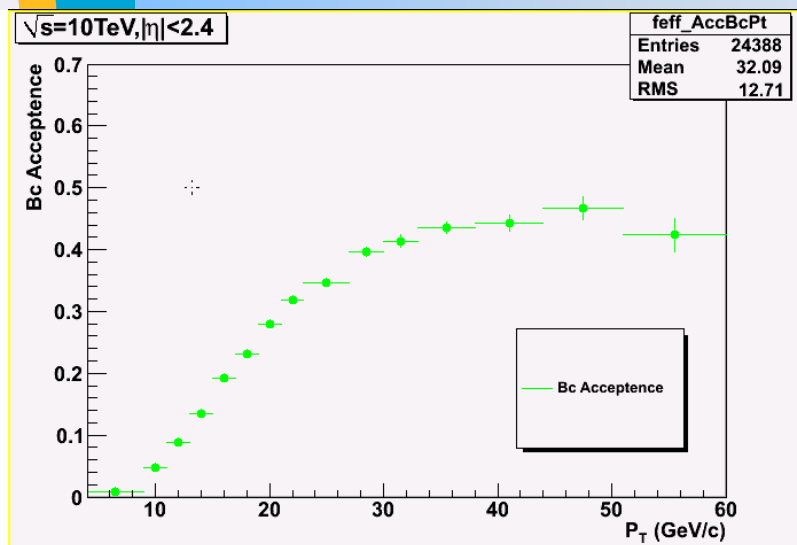


Jpsi+Muon Mass(After MC True match)

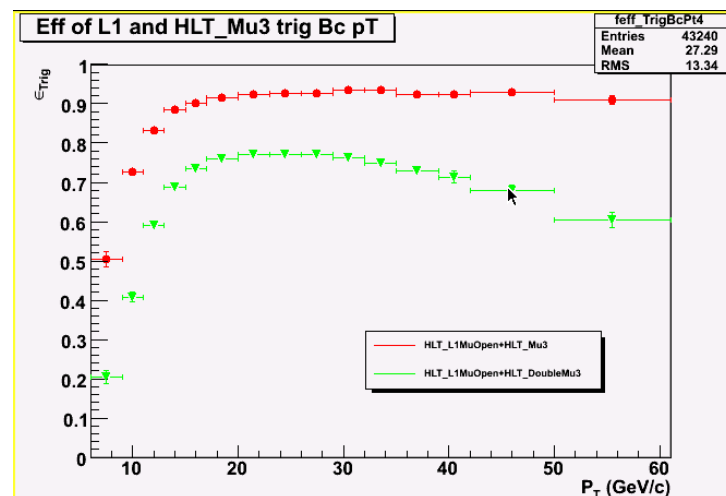
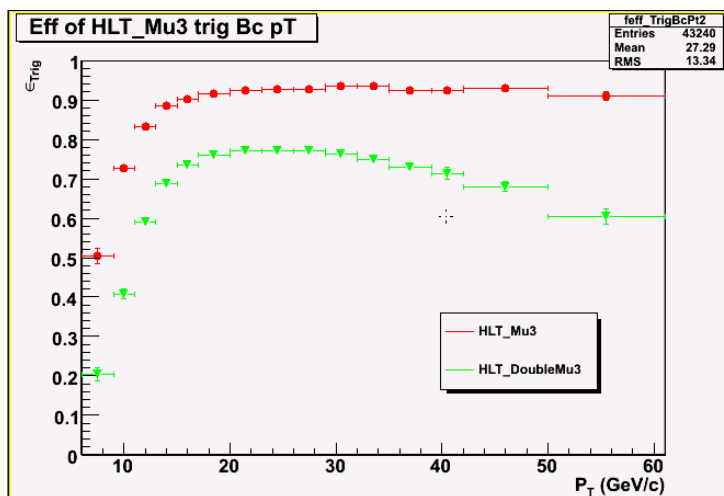
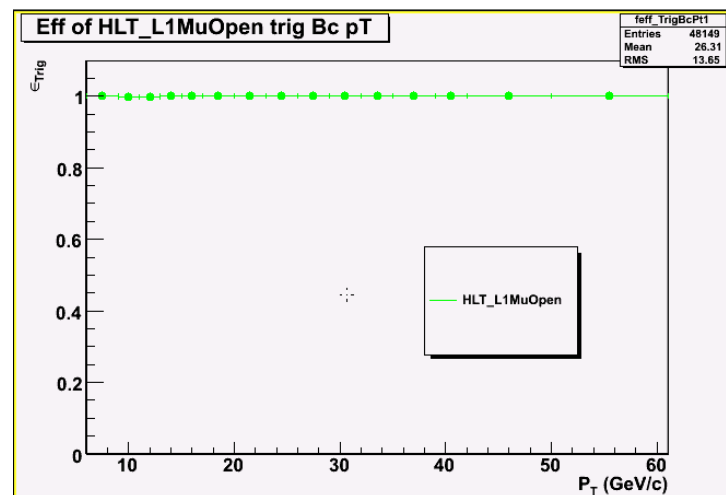
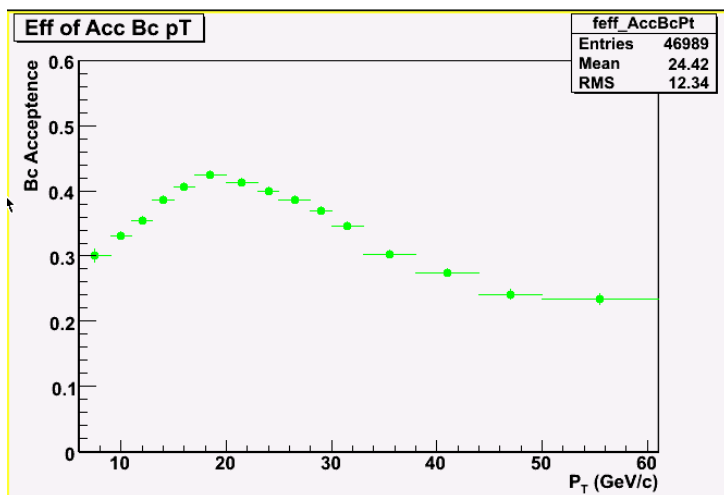


Jpsi+Muon pt(after MC True match)

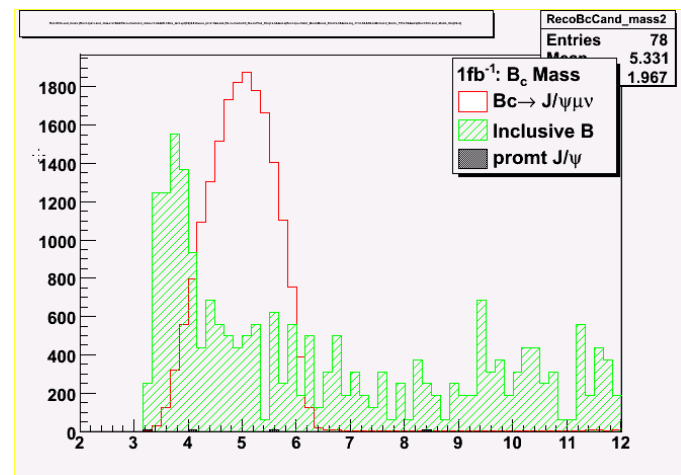
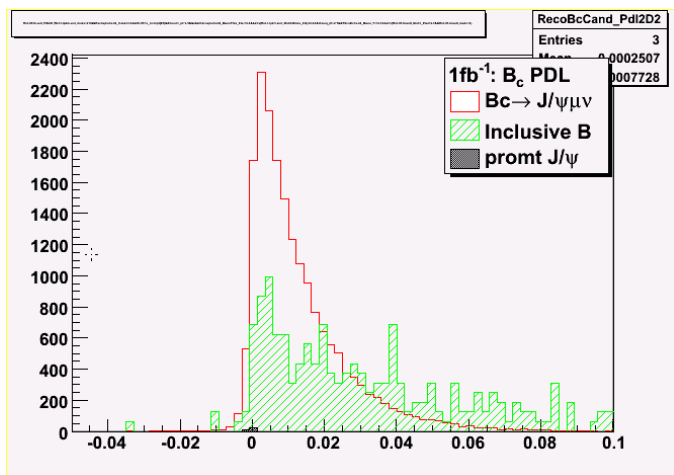
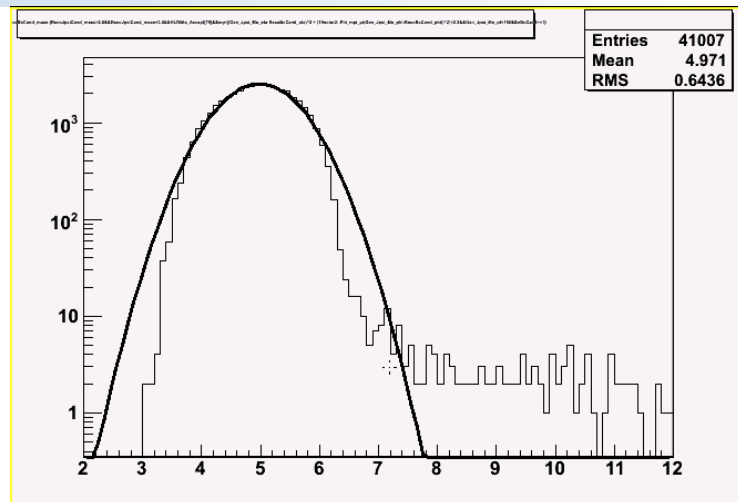
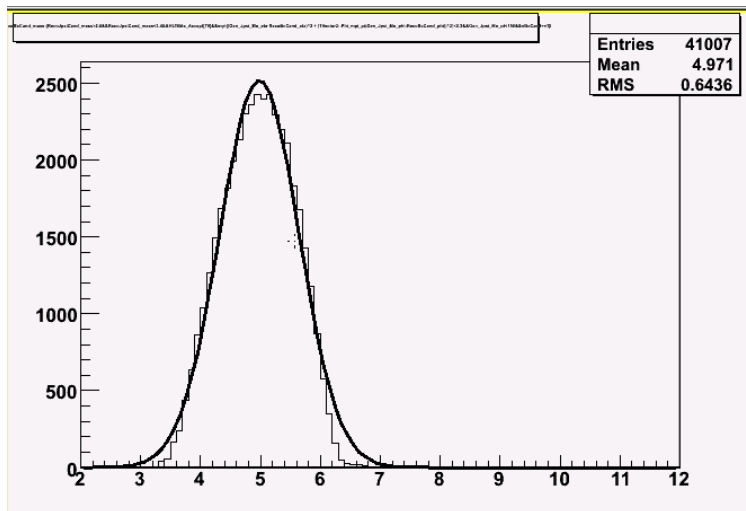




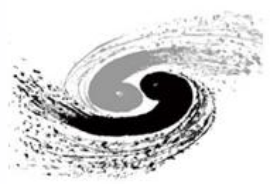
Jpsi+Muon Reco efficiency (After MC True match, No Trigger)



Fit strategy



Next step

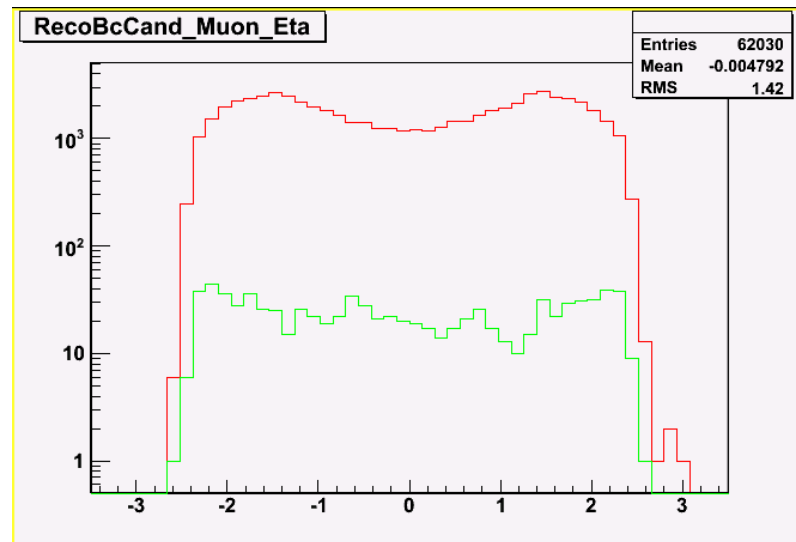
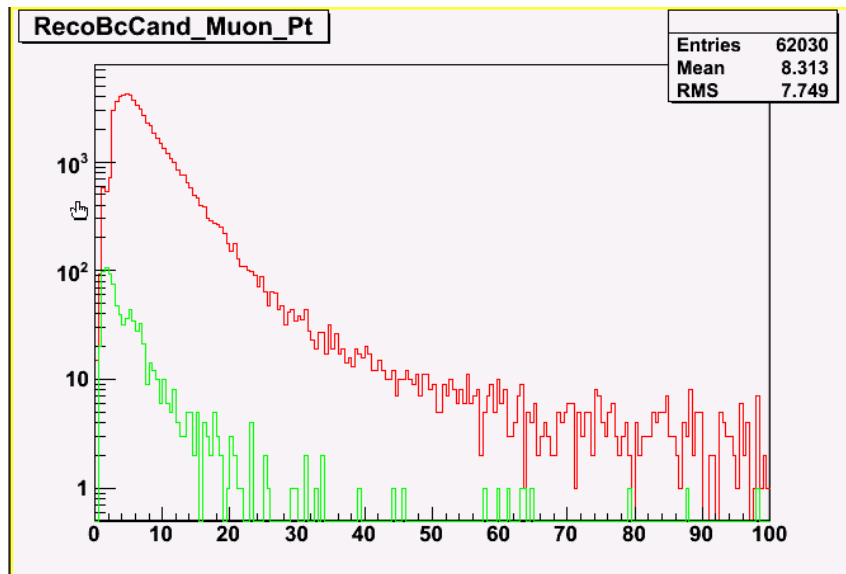
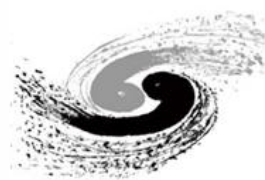


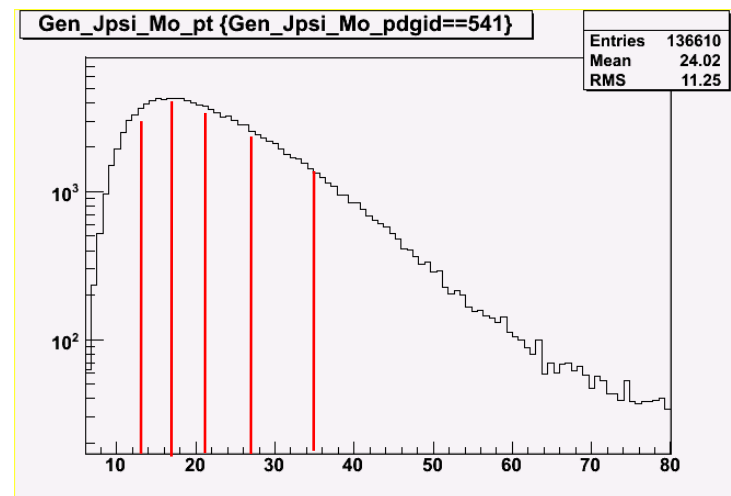
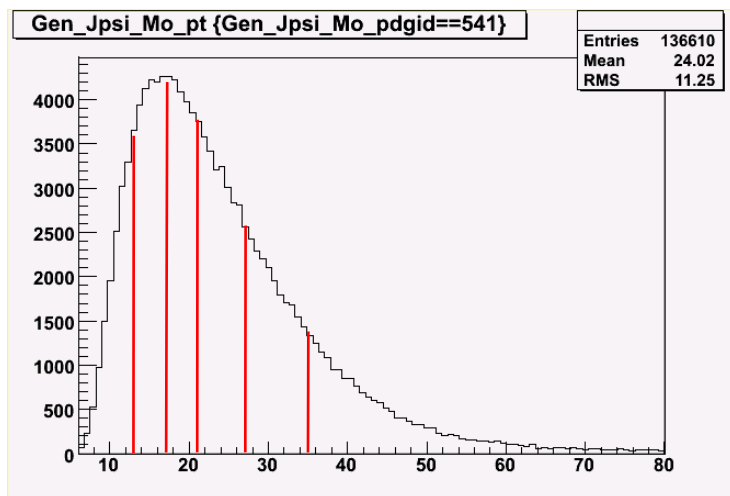
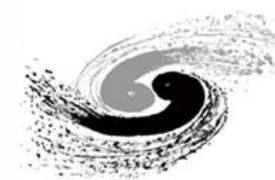
- The mass and proper decay length Fit.
- Use Track muon to reconstruct B_c .
- $B_c \rightarrow J/\psi \text{ Pi}$ analysis.
- B_c low pt signal production in CMSSW_3_1_x.



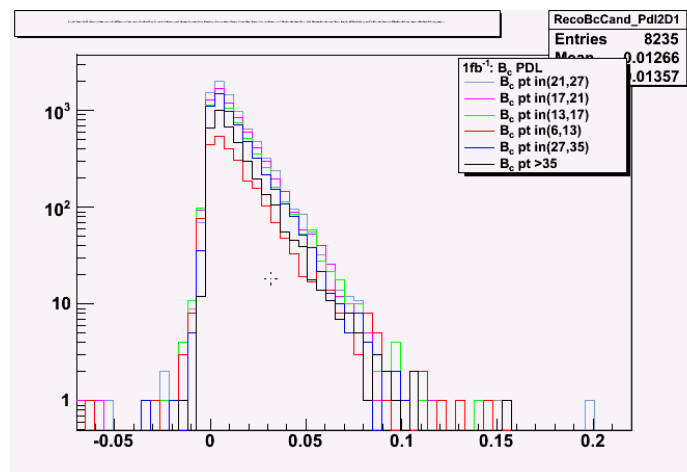
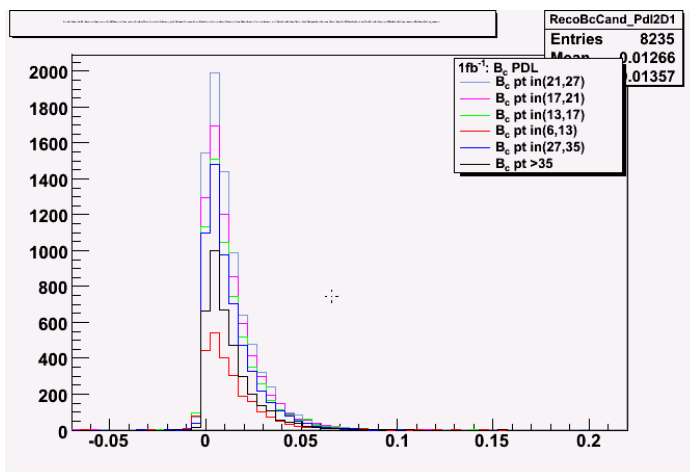
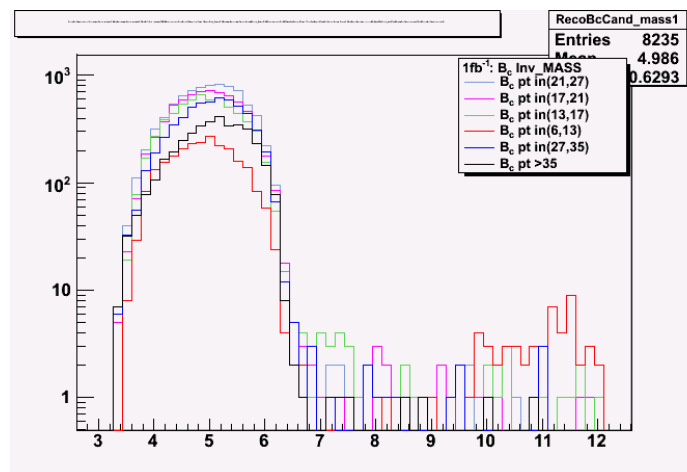
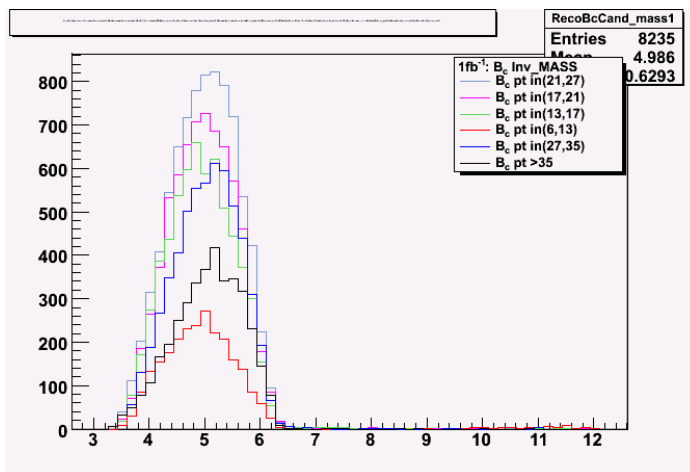
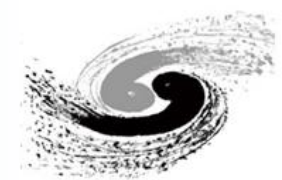
Thank you!

Backup

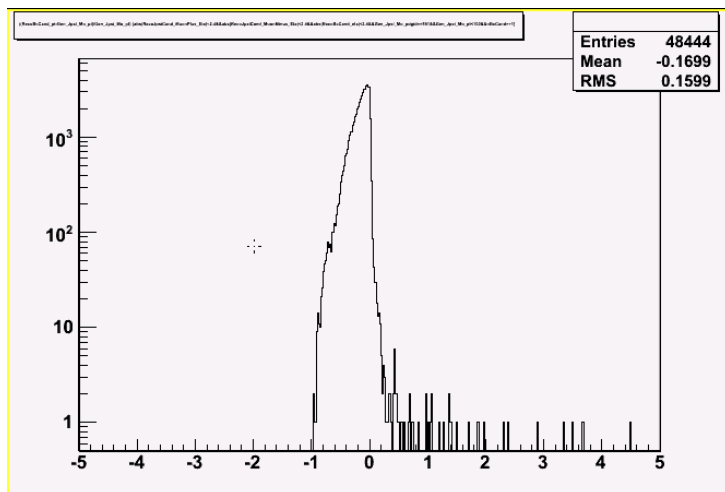
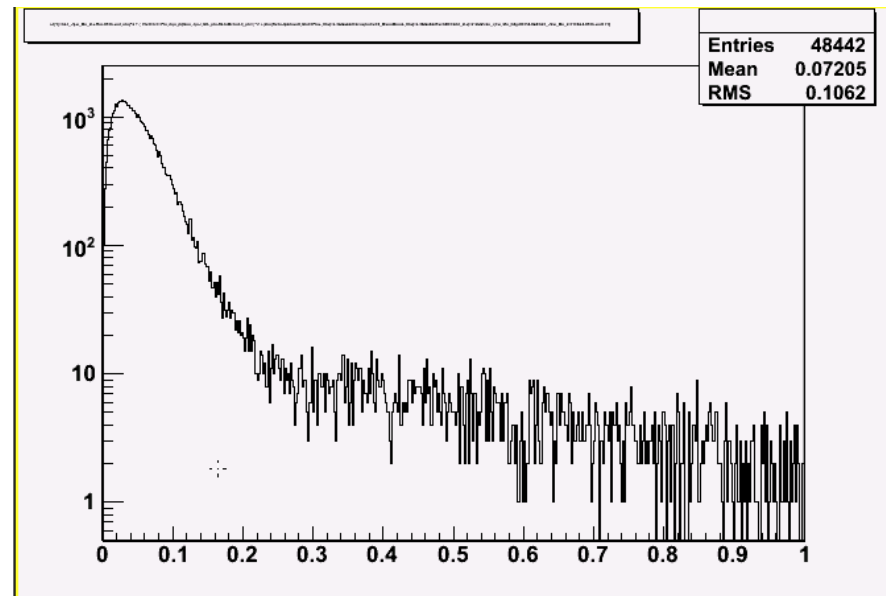
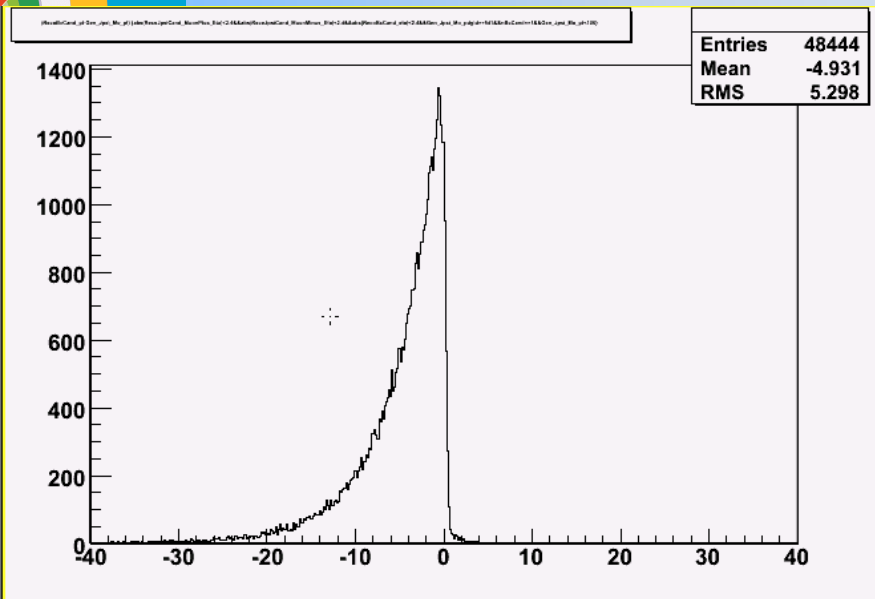




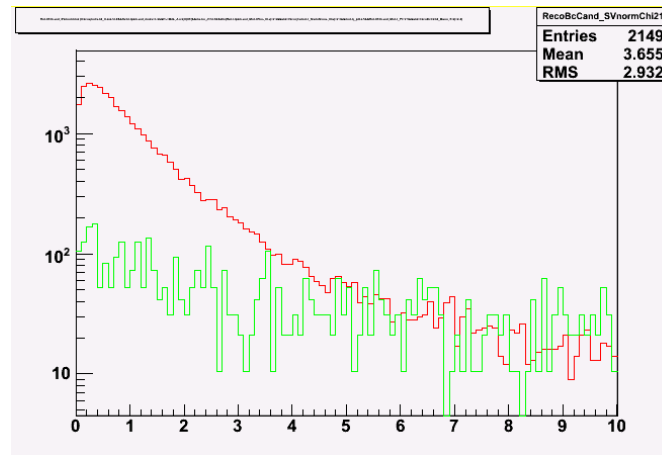
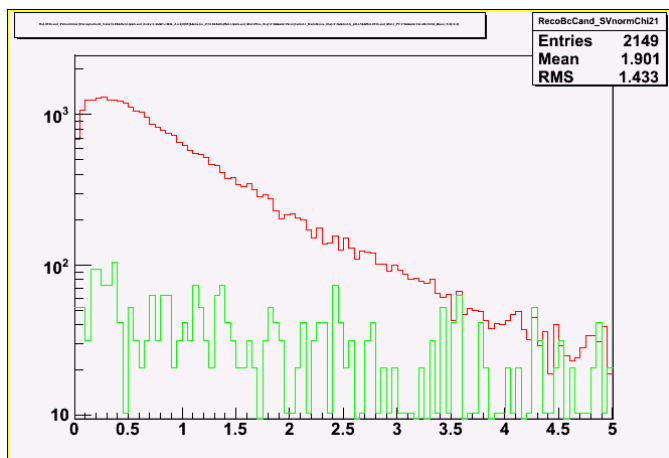
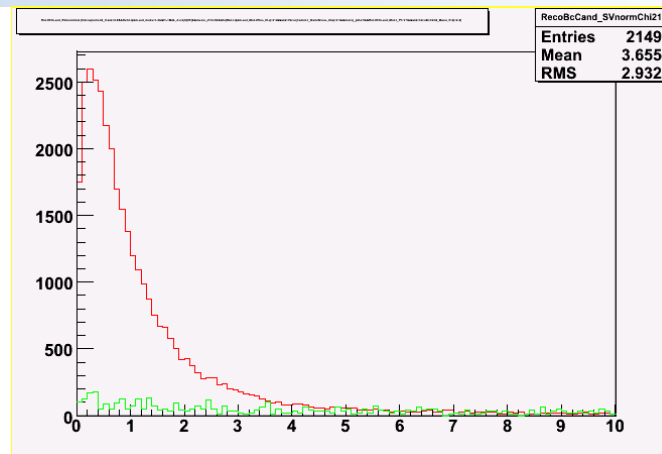
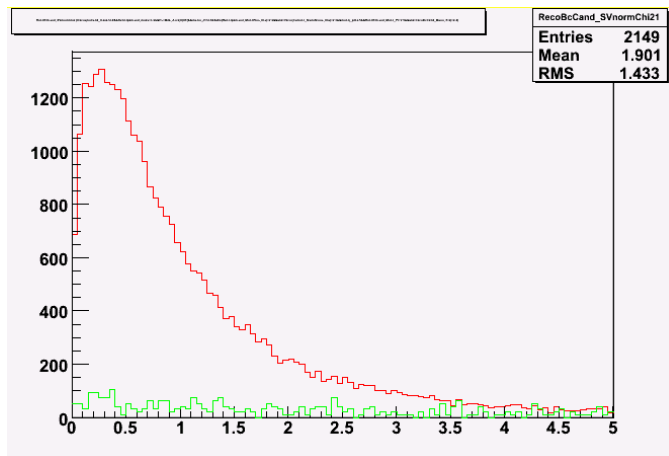
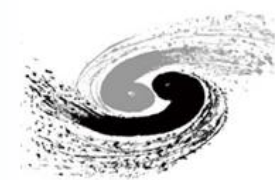
$6 < Pt < 13$, $13 < Pt < 17$, $17 < Pt < 21$
 $21 < Pt < 27$, $27 < Pt < 35$, $Pt > 35$



Path Name	L1 Trigger	L1 requirements	L2 requirements	L2Iso requirements	L3 requirements	L3Iso requirements
HLT_L1MuOpen	L1_SingleMuOpen OR L1_SingleMu0	1 or more, pT > 0.0GeV	none	none	none	none
HLT_L1Mu	L1_SingleMu7 OR L1_DoubleMu3	1 or more, pT > 0.0GeV	none	none	none	none
HLT_L1Mu20HQ	L1_SingleMu20	1 or more, pT > 20.0GeV, qualities = { 7 }	none	none	none	none
HLT_L1Mu30	L1_SingleMu20	1 or more, pT > 30.0GeV	none	none	none	none
HLT_L2Mu11	L1_SingleMu7	1 or more, pT > 0.0GeV	1 or more, pT > 11.0GeV, dxy< 9999.0cm	none	none	none
HLT_IsoMu9	L1_SingleMu7	1 or more, pT > 0.0GeV	1 or more, pT > 7.0GeV, dxy< 9999.0cm	1 or more	1 or more, pT > 9.0GeV, dxy< 2.0cm	1 or more
HLT_Mu5	L1_SingleMu3	1 or more, pT > 0.0GeV	1 or more, pT > 4.0GeV, dxy< 9999.0cm	none	1 or more, pT > 5.0GeV, dxy< 2.0cm	none
HLT_Mu9	L1_SingleMu7	1 or more, pT > 0.0GeV	1 or more, pT > 7.0GeV, dxy< 9999.0cm	none	1 or more, pT > 9.0GeV, dxy< 2.0cm	none
HLT_Mu11	L1_SingleMu7	1 or more, pT > 0.0GeV	1 or more, pT > 9.0GeV, dxy< 9999.0cm	none	1 or more, pT > 11.0GeV, dxy< 2.0cm	none
HLT_Mu15	L1_SingleMu10	1 or more, pT > 0.0GeV	1 or more, pT > 12.0GeV, dxy< 9999.0cm	none	1 or more, pT > 15.0GeV, dxy< 2.0cm	none
HLT_L1DoubleMuOpen	L1_DoubleMuOpen	2 or more, pT > 0.0GeV	none	none	none	none
HLT_DoubleMu0	L1_DoubleMuOpen	2 or more, pT > 0.0GeV	2 or more, pT > 0.0GeV, dxy< 9999.0cm	none	2 or more, pT > 0.0GeV, dxy< 2.0cm	none
HLT_DoubleMu3	L1_DoubleMu3	2 or more, pT > 0.0GeV	2 or more, pT > 3.0GeV, dxy< 9999.0cm	none	2 or more, pT > 3.0GeV, dxy< 2.0cm	none



Bc normalized χ^2



- Select Criteria :
- 9) Jpsi normalized $\chi^2 < 5(\chi^2/\text{ndof})$



