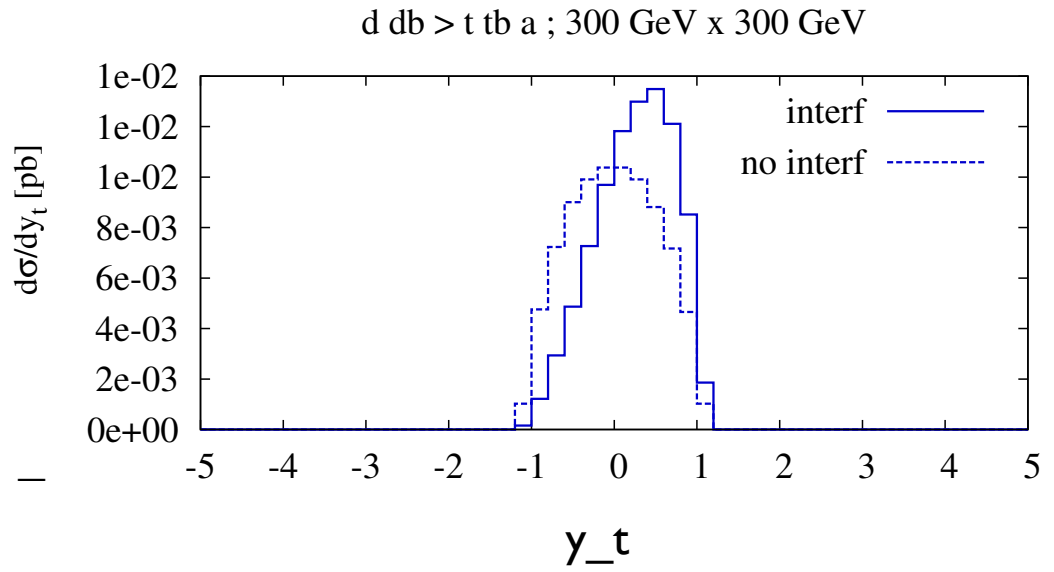
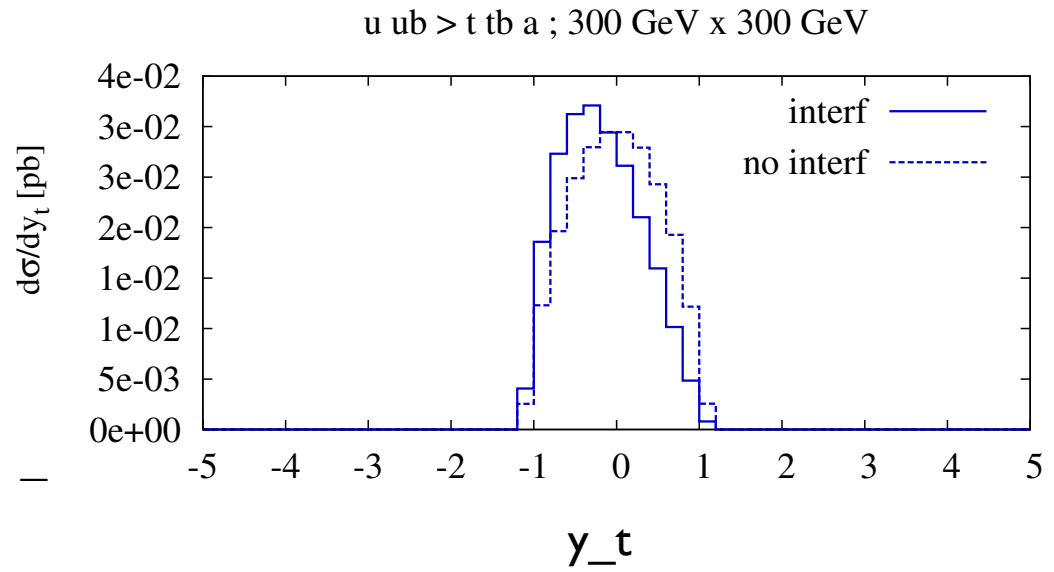
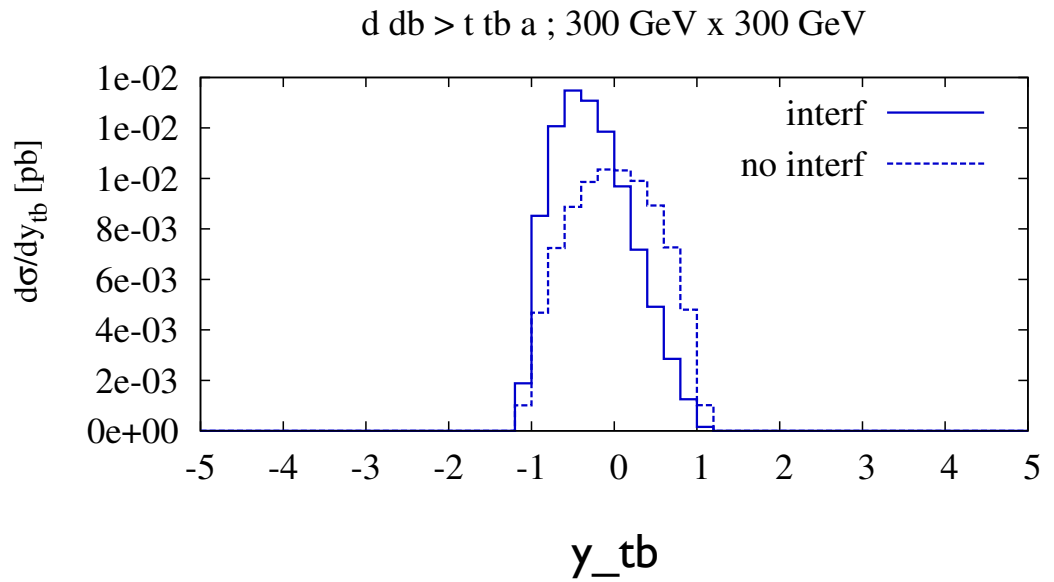
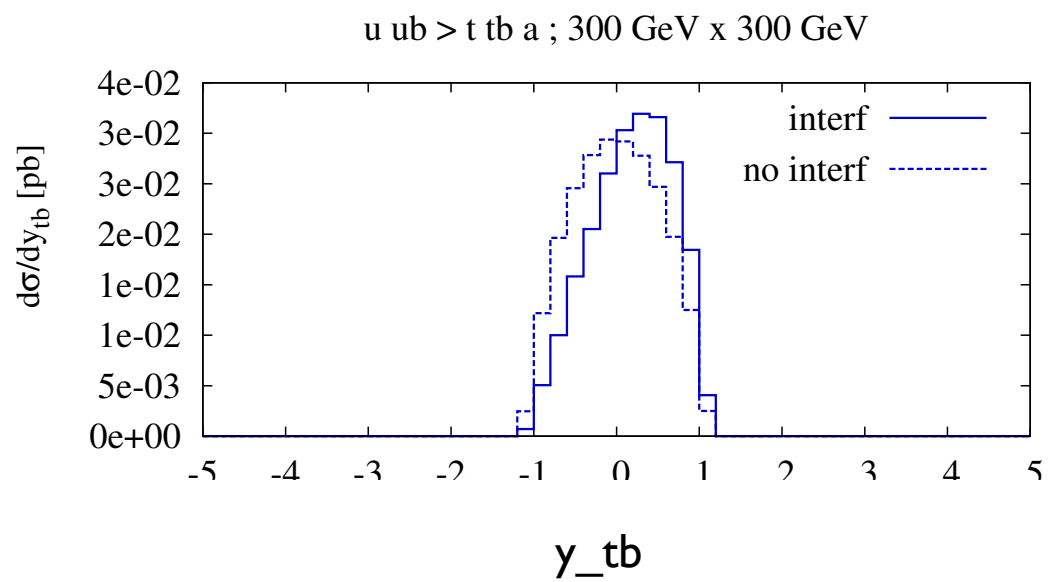

d db > t tb a ; 300 GeV x 300 GeV
dσ/dy_t [pb]
interf
no interf
y_t

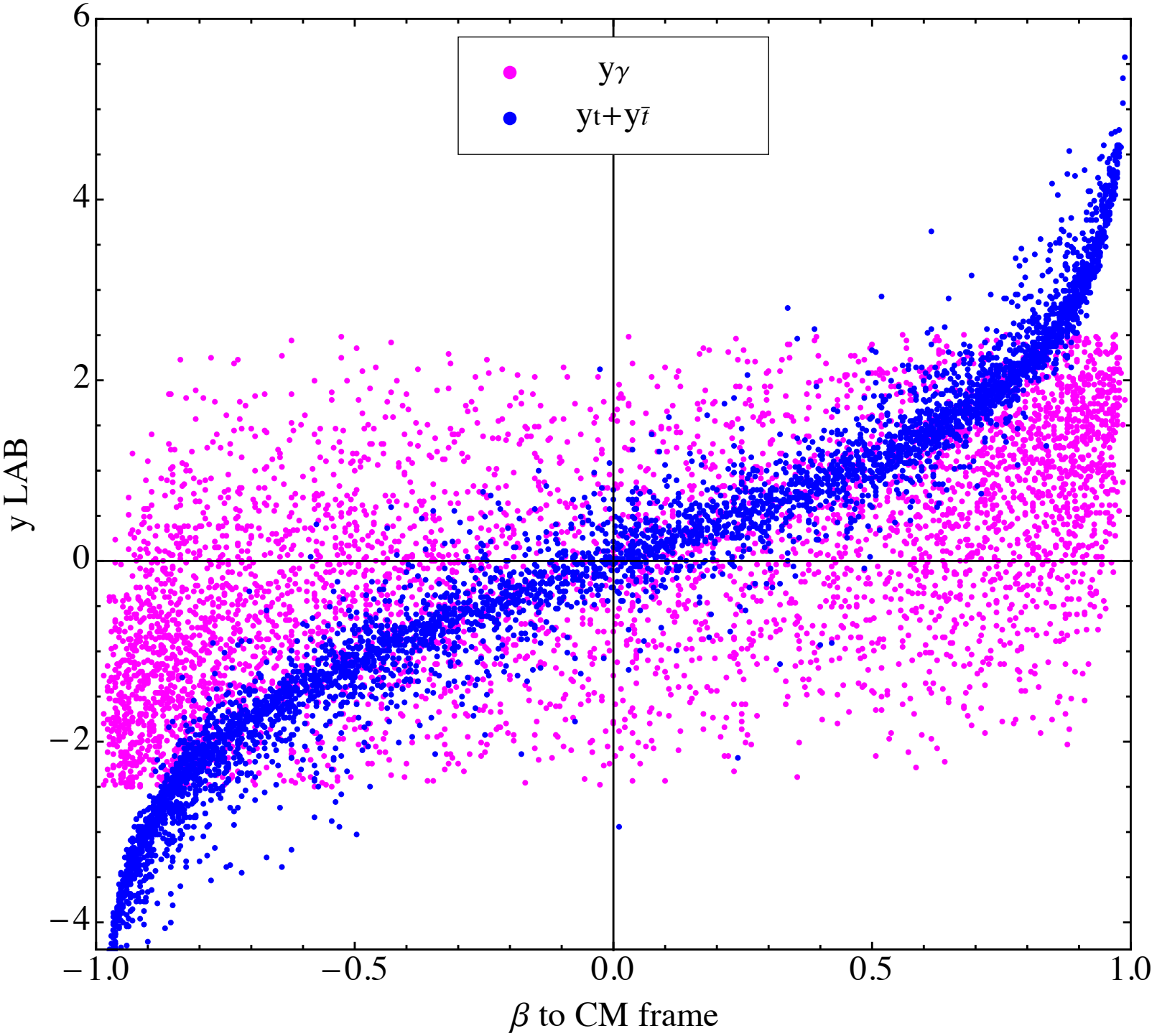

u ub > t tb a ; 300 GeV x 300 GeV
dσ/dy_t [pb]
interf
no interf
y_t

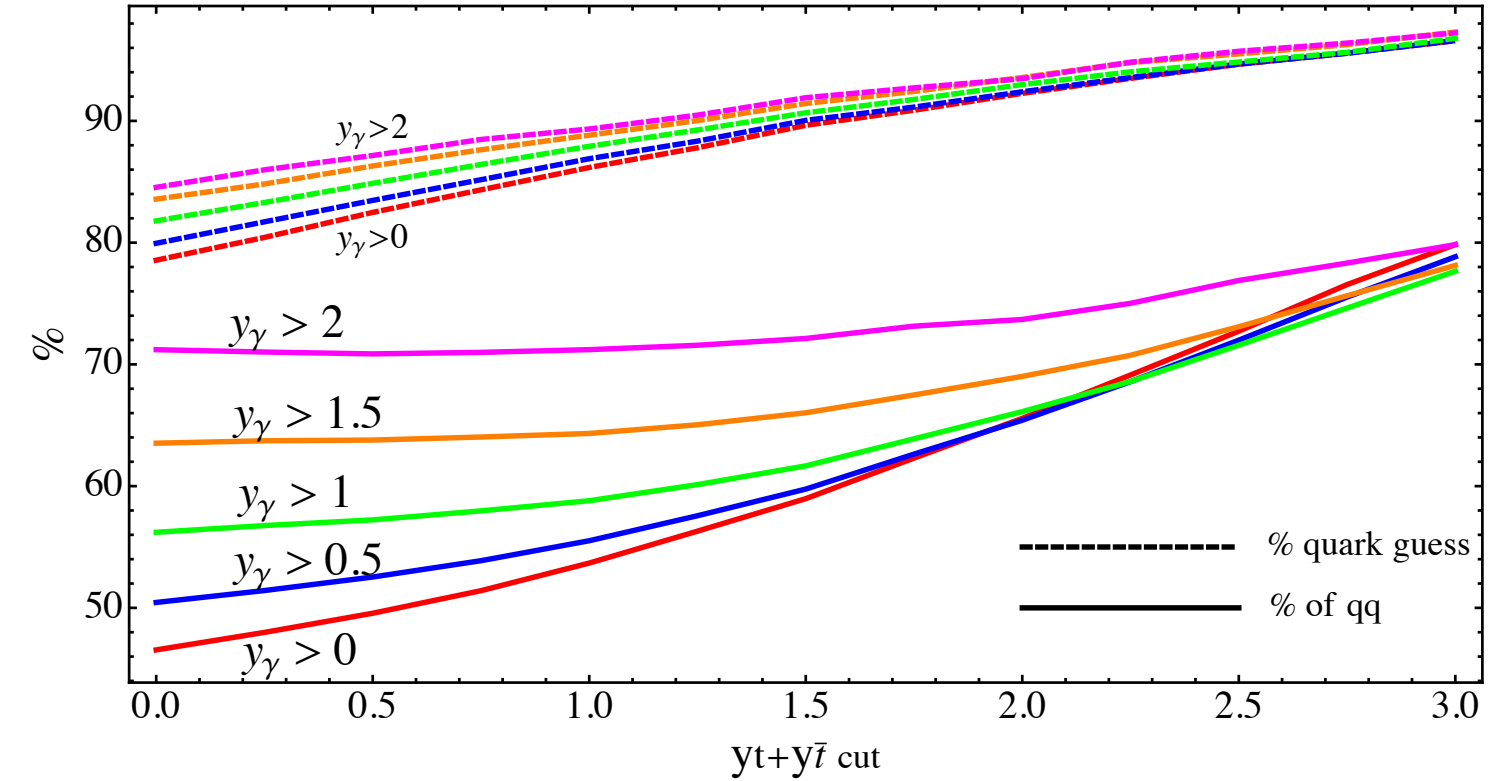

d db > t tb a ; 300 GeV x 300 GeV
dσ/dy_tb [pb]
interf
no interf
y_tb


u ub > t tb a ; 300 GeV x 300 GeV
dσ/dy_tb [pb]
interf
no interf
y_tb

A=40%

A=-29%


yγ
yt+yt̄
y LAB
β to CM frame
6
4
2
0
−2
−4
−1.0
−0.5
0.0
0.5
1.0


90
80
70
60
50
%
y_γ>2
y_γ>0
$y_\gamma > 2$
$y_\gamma > 1.5$
$y_\gamma > 1$
$y_\gamma > 0.5$
$y_\gamma > 0$
% quark guess
% of qq
0.0
0.5
1.0
1.5
2.0
2.5
3.0
yt+y$\bar{t}$ cut

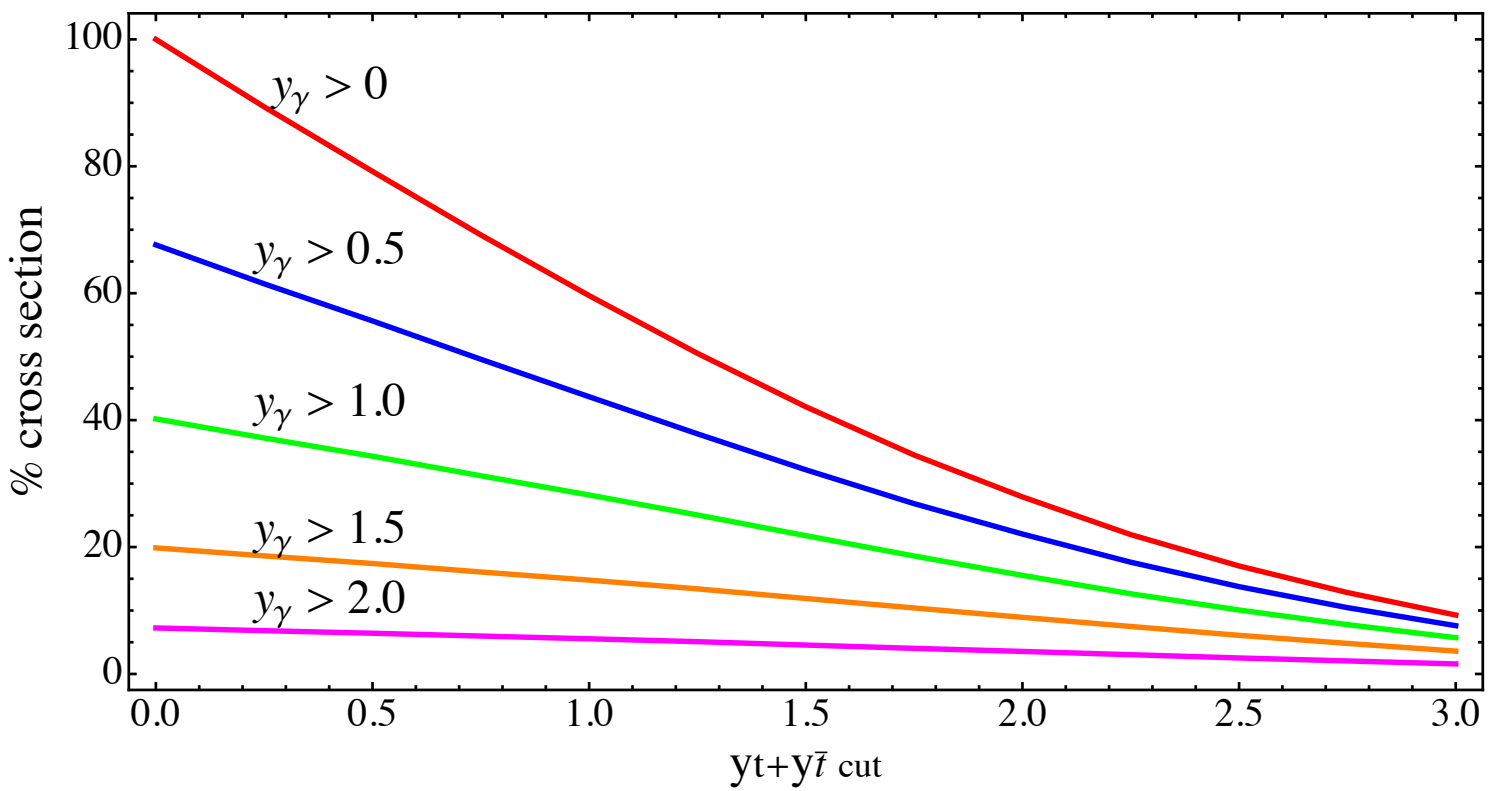

100
80
60
40
20
0
% cross section
$y_\gamma > 0$
$y_\gamma > 0.5$
$y_\gamma > 1.0$
$y_\gamma > 1.5$
$y_\gamma > 2.0$
0.0
0.5
1.0
1.5
2.0
2.5
3.0
yt+y$\bar{t}$ cut

Table prepared using aMC@NLO:

p p > t t~ a [QCD]

* Cut pt_γ > 20 GeV

* Cut $|\eta_\gamma|$ < 2.5

* Frixione isolation (params. Eh=1, R=0.7)

  modify cuts.f or v4 update (soon)

Run at 8 TeV

uncertainties shown are pdf and scale

	LO		NLO	
	σ (pb)	A (%)	σ (pb)	A (%)
no further cuts	0.76(30)	-5.5(3)	0.80(6)	- 2.2(3)
$\lvert y_t \rvert + \lvert y_{\bar{t}} \rvert > 1$	0.53(20)	-7.2(4)	0.56(4)	- 2.7(3)
$\lvert y_t \rvert + \lvert y_{\bar{t}} \rvert > 2$	0.34(12)	-9.0(5)	0.36(3)	- 3.7(4)
$m_{t\bar{t}} > 450$GeV	0.54(20)	-5.6(4)	0.54(4)	- 0.1(3)
$m_{t\bar{t}} > 650$GeV	0.23(9)	-5.3(4)	0.23(2)	+ 2.2(4)