Original Latex file created on 22Aug06_1022 and Modified on August 22, 2006.
Numbers in tables created on unknown unknown unknown.
Data processed in Dec 2005 - Jan 2006.
This data has been skimmed from PNN2-ntuples with the following cuts: OR of 1/3 skims, BAD_RUN, (BOX2 or boxcuts), RSDEDXMAX, RSDEDXCL on the PNN2_SKIM set.

The title of a column describes the data set used.
pnn2 = PNN1+PNN2 data with the most up-to-date cuts applied.
pnn1 = PNN1 data with the most up-to-date cuts applied.
pnn2only = PNN2 data with the most up-to-date cuts applied.

Tables 1-5 are a summary of the long tables that follow.

The long tables track the events on a cut-by-cut basis. There are 3 columns per data set analyzed. In each column the first number in the cell is the number of events and the number in parenthesis is the rejection. The 1st column is the cuts applied sequentially; the 2nd is the application of only the listed cut; The 3rd is the number of events remaining before this cut is applied and the rejection of the cut.

Some cuts may have 787, 949, or cur attached to them. That means that the cut is set at the e787-pnn2, e949-pnn1, or the current e949-pnn2 level. Note that many of the cuts labeled cur are more than likely to be a carry over from e949-pnn1.

rejection (n)	p1d1	p1d2	p1all
Loose Setup	1659.5 ± 829.5 (4)	7610.5 ± 5381.1 (2)	3643.2 ± 1487.1 (6)
TD	3839.0 ± 3838.5 (1)	9623.0 ± 9622.5 (1)	13462.0 ± 13461.5 (1)
$TD \cdot KIN$	1277.0 ± 1276.5 (1)	3363.0 ± 3362.5 (1)	4640.0 ± 4639.5 (1)

Table 1: **1-Beam Rejection Summary** of Tables 6-8. Each row is a different branch to measure the DELCO rejection. First number is the rejection. The number is parenthesis is the number of events remaining that the rejection is based upon. The minimum rejection is used in calculation of the 1-BM background for a conservative estimate.

Norm. branches	p1d1	p1d2	p1all
ALL cuts below NORM	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0
$PV \cdot TD$ norm	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0
$CkTRS \cdot CkTail$ rej	0.0 ± 0.0	2.0 ± 1.4	2.0 ± 1.4
$B4DEDX$ norm	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0
$CpiTRS \cdot CpiTail$ rej	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
N_K	99999.0 ± 99999.0	1.0 ± 1.2	1.0 ± 1.2
N_{pi}	99999.0 ± 99999.0	99999.0 ± 99999.0	99999.0 ± 99999.0

Table 2: **1-Beam Normalization Summary** of Tables 9-13. The ALL-cuts-below row uses the combination of all cuts in the following 4 rows (branches) and is the normalization number used in the calculation of the numbers reported in Table 5 (Total Background). The sum of the last two rows provide a check on the ALL-cuts-below number.

rejection (n)	p1d1	p1d2	p1all
Rej_{K-K} : $BWTRS \cdot CkTRS \cdot CkTail$	80.0 ± 79.5 (1)	167.0 ± 166.5 (1)	123.5 ± 87.0 (2)
Rej_{K-pi} : $BWTRS \cdot CpiTRS \cdot CpiTail$	2216.0 ± 2215.5 (1)	3936.5 ± 2783.2 (2)	5044.5 ± 3566.7 (2)

Table 3: **2-Beam Rejection Summary** of Tables 14-15. First number is the rejection. The number in parenthesis is the number of events remaining that the rejection is based upon. K-K is the case where two Kaons are entering the beam. K-pi is the case where we have a Kaon and a Pion entering. $\overline{B4TRS \cdot B4CCD}$ is applied.

Norm. branches	p1d1	p1d2	p1all
K-K_n : $B4TRS \cdot B4CCD$	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0
K-K_r : $TG \cdot TGKIN \cdot TGPV$	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
K-pi_n : $B4TRS \cdot B4CCD$	1.0 ± 1.0	1.0 ± 1.0	1.0 ± 1.0
K-pi_r : $TG \cdot TGKIN \cdot TGPV$	9.0 ± 8.5	25.0 ± 24.5	34.0 ± 33.5
N_{K-K}	1 ± 1	1 ± 1	1 ± 1
N_{K-pi}	0.1 ± 0.2	0.0 ± 0.1	0.0 ± 0.0

Table 4: **2-Beam Normalization Summary** of Tables 16-19. The 2-BM Normalization has 2 branches that are further bifurcated. K-$K_{r,n}$, K-$pi_{r,n}$ are the results of the bifurcations, r=rejection, n=normalization, which we used to determine the last two rows. N_{K-K} and N_{K-pi} are the 2-BM normalization values which are used in combination with Table 3 to give the final background in Table 5. For KK (Kpi), $\overline{CkTRS \cdot CkTAIL \cdot BWTRS}$ ($\overline{CpiTRS \cdot CpiTAIL \cdot BWTRS}$) is applied

$Bkgrnd$ ($\times 10^{-3}$)	k034	e787	p1d1	p1d2	p1all
1-BM	3.86 ± 2.36	1.66 ± 1.66	2.35 ± 2.35	0.89 ± 0.89	0.82 ± 0.82
2-BM KK	0.983 ± 0.983	145.9 ± 145.9	0.451 ± 0.451	0.254 ± 0.254	0.198 ± 0.198
2-BM Kpi	0.106 ± 0.106	19.7 ± 19.7	0.15 ± 0.26	0.03 ± 0.05	0.02 ± 0.03
2-BM	1.14 ± 1.14	165.6 ± 165.6	±	±	±
Total	5.00 ± 2.62	167.3 ± 167.3	±	±	±

Table 5: **Total Background.** Scaled to the 3/3 sample. k034 column is the result of e949-pnn1 analysis. e787 is the result of the e787-PNN2 analysis. The other columns are current results that are expanded upon throughout the rest of the tables. The errors are statistical. KB_{live} for k034 is 1.77×10^{12} and for e787 is 1.71×10^{12} . e787 background has been scaled up accordingly for comparison purposes.

Table 6: 1-Beam Rejection. Branch no. 1

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbu
BOX 949	130765 (0.00)	0 (130765.00)	4 (1.00)	299376 (0.00)	0 (299376.00)	2 (1.00
$rsdedxmax$	130765 (1.00)	0 (130765.00)	4 (1.00)	299376 (1.00)	0 (299376.00)	2 (1.00
$rsdedxcl$	130765 (1.00)	0 (130765.00)	4 (1.00)	299376 (1.00)	0 (299376.00)	2 (1.00
$rslike$	130765 (1.00)	0 (130765.00)	4 (1.00)	299376 (1.00)	0 (299376.00)	2 (1.00
$rngmom$	116207 (1.13)	14558 (8.98)	7 (1.75)	277281 (1.08)	22095 (13.55)	6 (3.00
$pv(not\ tg)$	78690 (1.48)	42033 (3.11)	4 (1.00)	190954 (1.45)	92956 (3.22)	2 (1.00
$bwtrs$	49211 (1.60)	45189 (2.89)	4 (1.00)	106792 (1.79)	124741 (2.40)	4 (2.00
$b4trs$	43428 (1.13)	42550 (3.07)	5 (1.25)	93904 (1.14)	119516 (2.50)	3 (1.50
$b4ccd$	43361 (1.00)	954 (137.07)	4 (1.00)	93776 (1.00)	2350 (127.39)	2 (1.00
$tgqualt$	42084 (1.03)	3784 (34.56)	4 (1.00)	91005 (1.03)	8537 (35.07)	2 (1.00
$timcon$	41879 (1.00)	1296 (100.90)	4 (1.00)	90589 (1.00)	3113 (96.17)	2 (1.00
$epitg$	41397 (1.01)	6783 (19.28)	4 (1.00)	89671 (1.01)	21067 (14.21)	2 (1.00
$tger$	41280 (1.00)	1297 (100.82)	4 (1.00)	89420 (1.00)	2997 (99.89)	2 (1.00
$targf$	39652 (1.04)	24435 (5.35)	4 (1.00)	86151 (1.04)	67883 (4.41)	3 (1.50
$ticcon$	39651 (1.00)	8 (16345.60)	4 (1.00)	86150 (1.00)	31 (9657.29)	2 (1.00
$dtgttp$	39648 (1.00)	66 (1981.29)	4 (1.00)	86138 (1.00)	158 (1894.78)	2 (1.00
$rtdif$	38128 (1.04)	3643 (35.89)	4 (1.00)	83080 (1.04)	8020 (37.33)	2 (1.00
$epimaxk$	35832 (1.06)	13723 (9.53)	4 (1.00)	78397 (1.06)	35937 (8.33)	2 (1.00
drp	35446 (1.01)	896 (145.94)	4 (1.00)	77510 (1.01)	2034 (147.19)	2 (1.00
$phivtx1$	27723 (1.28)	28004 (4.67)	5 (1.25)	60632 (1.28)	66655 (4.49)	2 (1.00
$eiccon$	26939 (1.03)	4873 (26.83)	4 (1.00)	58991 (1.03)	10101 (29.64)	2 (1.00
$opsveto$	22608 (1.19)	34528 (3.79)	4 (1.00)	49372 (1.19)	85238 (3.51)	3 (1.50
kic	20826 (1.09)	30450 (4.29)	4 (1.00)	45713 (1.08)	73272 (4.09)	2 (1.00
$tggeo$	18874 (1.10)	51274 (2.55)	4 (1.00)	41440 (1.10)	120275 (2.49)	2 (1.00
$tdedge$	17711 (1.07)	21033 (6.22)	4 (1.00)	38867 (1.07)	47074 (6.36)	2 (1.00
$tgzfool$ 787	13814 (1.28)	29296 (4.46)	4 (1.00)	30250 (1.28)	66621 (4.49)	2 (1.00
$upvtrs$	12092 (1.14)	15456 (8.46)	4 (1.00)	26743 (1.13)	33298 (8.99)	2 (1.00
$rvtrs$	12040 (1.00)	2022 (64.67)	4 (1.00)	26622 (1.00)	3888 (77.00)	2 (1.00
$tgtcon$	11720 (1.03)	7213 (18.13)	4 (1.00)	25744 (1.03)	18592 (16.10)	2 (1.00
$b4etcon$	11438 (1.02)	3996 (32.72)	5 (1.25)	24948 (1.03)	9912 (30.20)	2 (1.00
$b4abmfromfile$	**6638** (1.72)	82947 (1.58)	609 (152.25)	**15221** (1.64)	190677 (1.57)	717 (358.50
$DELC(0.)$	**4** (1659.50)	91970 (1.42)	6638 (1659.50)	**2** (7610.50)	190582 (1.57)	15221 (7610.50
Total Rej.	1659.50			7610.50		

Table 7: 1-Beam Rejection. Branch no. 2

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)
pv(not tg)	78690 (1.48)	42033 (3.11)	0 (0.00)	190954 (1.45)	92956 (3.22)	0 (0.00)
bwtrs	49211 (1.60)	45189 (2.89)	0 (0.00)	106792 (1.79)	124741 (2.40)	1 (1.00)
b4trs	43428 (1.13)	42550 (3.07)	1 (1.00)	93904 (1.14)	119516 (2.50)	1 (1.00)
b4ccd	43361 (1.00)	954 (137.07)	0 (0.00)	93776 (1.00)	2350 (127.39)	0 (0.00)
tgqualt	42084 (1.03)	3784 (34.56)	0 (0.00)	91005 (1.03)	8537 (35.07)	0 (0.00)
timcon	41879 (1.00)	1296 (100.90)	0 (0.00)	90589 (1.00)	3113 (96.17)	0 (0.00)
epitg	41397 (1.01)	6783 (19.28)	0 (0.00)	89671 (1.01)	21067 (14.21)	0 (0.00)
tger	41280 (1.00)	1297 (100.82)	0 (0.00)	89420 (1.00)	2997 (99.89)	0 (0.00)
targf	39652 (1.04)	24435 (5.35)	0 (0.00)	86151 (1.04)	67883 (4.41)	1 (1.00)
ticcon	39651 (1.00)	8 (16345.60)	0 (0.00)	86150 (1.00)	31 (9657.29)	0 (0.00)
dtgttp	39648 (1.00)	66 (1981.29)	0 (0.00)	86138 (1.00)	158 (1894.78)	0 (0.00)
rtdif	38128 (1.04)	3643 (35.89)	0 (0.00)	83080 (1.04)	8020 (37.33)	0 (0.00)
epimaxk	35832 (1.06)	13723 (9.53)	0 (0.00)	78397 (1.06)	35937 (8.33)	0 (0.00)
drp	35446 (1.01)	896 (145.94)	0 (0.00)	77510 (1.01)	2034 (147.19)	0 (0.00)
*phivtx*1	27723 (1.28)	28004 (4.67)	0 (0.00)	60632 (1.28)	66655 (4.49)	0 (0.00)
eiccon	26939 (1.03)	4873 (26.83)	0 (0.00)	58991 (1.03)	10101 (29.64)	0 (0.00)
opsveto	22608 (1.19)	34528 (3.79)	0 (0.00)	49372 (1.19)	85238 (3.51)	0 (0.00)
kic	20826 (1.09)	30450 (4.29)	0 (0.00)	45713 (1.08)	73272 (4.09)	0 (0.00)
tggeo	18874 (1.10)	51274 (2.55)	0 (0.00)	41440 (1.10)	120275 (2.49)	0 (0.00)
tdedge	17711 (1.07)	21033 (6.22)	0 (0.00)	38867 (1.07)	47074 (6.36)	0 (0.00)
tgzfool 787	13814 (1.28)	29296 (4.46)	0 (0.00)	30250 (1.28)	66621 (4.49)	0 (0.00)
upvtrs	12092 (1.14)	15456 (8.46)	0 (0.00)	26743 (1.13)	33298 (8.99)	0 (0.00)
rvtrs	12040 (1.00)	2022 (64.67)	0 (0.00)	26622 (1.00)	3888 (77.00)	0 (0.00)
tgtcon	11720 (1.03)	7213 (18.13)	0 (0.00)	25744 (1.03)	18592 (16.10)	0 (0.00)
b4etcon	11438 (1.02)	3996 (32.72)	0 (0.00)	24948 (1.03)	9912 (30.20)	0 (0.00)
b4abmfromfile	6638 (1.72)	82947 (1.58)	3 (3.00)	15221 (1.64)	190677 (1.57)	0 (0.00)
piflg	6632 (1.00)	3729 (35.07)	0 (0.00)	15204 (1.00)	4921 (60.84)	0 (0.00)
*ev*502	5289 (1.25)	31875 (4.10)	0 (0.00)	12724 (1.19)	56227 (5.32)	0 (0.00)
elveto	4796 (1.10)	21656 (6.04)	0 (0.00)	11740 (1.08)	38823 (7.71)	0 (0.00)
tdfool	4788 (1.00)	11204 (11.67)	0 (0.00)	11720 (1.00)	19556 (15.31)	0 (0.00)
*tdvarnn*02	3839 (1.25)	36493 (3.58)	0 (0.00)	9623 (1.22)	71584 (4.18)	0 (0.00)
TD	**3839** (1.00)	63004 (2.08)	0 (0.00)	**9623** (1.00)	124546 (2.40)	0 (0.00)
DELC(0.)	**0** (3839.00)	91970 (1.42)	3839 (3839.00)	**0** (9623.00)	190582 (1.57)	9623 (9623.00)
Total Rej.	3839.00			9623.00		

Table 8: 1-Beam Rejection. Branch no. 3

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	43014
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	43014
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	43014
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	43014
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	39348
pv(not tg)	78690 (1.48)	42033 (3.11)	0 (0.00)	190954 (1.45)	92956 (3.22)	0 (0.00)	26964
bwtrs	49211 (1.60)	45189 (2.89)	0 (0.00)	106792 (1.79)	124741 (2.40)	0 (0.00)	15600
b4trs	43428 (1.13)	42550 (3.07)	0 (0.00)	93904 (1.14)	119516 (2.50)	0 (0.00)	13733
b4ccd	43361 (1.00)	954 (137.07)	0 (0.00)	93776 (1.00)	2350 (127.39)	0 (0.00)	13713
tgqualt	42084 (1.03)	3784 (34.56)	0 (0.00)	91005 (1.03)	8537 (35.07)	0 (0.00)	13308
timcon	41879 (1.00)	1296 (100.90)	0 (0.00)	90589 (1.00)	3113 (96.17)	0 (0.00)	13246
epitg	41397 (1.01)	6783 (19.28)	0 (0.00)	89671 (1.01)	21067 (14.21)	0 (0.00)	13106
tger	41280 (1.00)	1297 (100.82)	0 (0.00)	89420 (1.00)	2997 (99.89)	0 (0.00)	13070
targf	39652 (1.04)	24435 (5.35)	0 (0.00)	86151 (1.04)	67883 (4.41)	0 (0.00)	12580
ticcon	39651 (1.00)	8 (16345.60)	0 (0.00)	86150 (1.00)	31 (9657.29)	0 (0.00)	12580
dtgttp	39648 (1.00)	66 (1981.29)	0 (0.00)	86138 (1.00)	158 (1894.78)	0 (0.00)	12578
rtdif	38128 (1.04)	3643 (35.89)	0 (0.00)	83080 (1.04)	8020 (37.33)	0 (0.00)	12120
epimaxk	35832 (1.06)	13723 (9.53)	0 (0.00)	78397 (1.06)	35937 (8.33)	0 (0.00)	11422
drp	35446 (1.01)	896 (145.94)	0 (0.00)	77510 (1.01)	2034 (147.19)	0 (0.00)	11295
*phivtx*1	27723 (1.28)	28004 (4.67)	0 (0.00)	60632 (1.28)	66655 (4.49)	0 (0.00)	8835
eiccon	26939 (1.03)	4873 (26.83)	0 (0.00)	58991 (1.03)	10101 (29.64)	0 (0.00)	8593
opsveto	22608 (1.19)	34528 (3.79)	0 (0.00)	49372 (1.19)	85238 (3.51)	0 (0.00)	7198
kic	20826 (1.09)	30450 (4.29)	0 (0.00)	45713 (1.08)	73272 (4.09)	0 (0.00)	6653
tggeo	18874 (1.10)	51274 (2.55)	0 (0.00)	41440 (1.10)	120275 (2.49)	0 (0.00)	6031
tdedge	17711 (1.07)	21033 (6.22)	0 (0.00)	38867 (1.07)	47074 (6.36)	0 (0.00)	5657
tgzfool 787	13814 (1.28)	29296 (4.46)	0 (0.00)	30250 (1.28)	66621 (4.49)	0 (0.00)	4406
upvtrs	12092 (1.14)	15456 (8.46)	0 (0.00)	26743 (1.13)	33298 (8.99)	0 (0.00)	3883
rvtrs	12040 (1.00)	2022 (64.67)	0 (0.00)	26622 (1.00)	3888 (77.00)	0 (0.00)	3866
tgtcon	11720 (1.03)	7213 (18.13)	0 (0.00)	25744 (1.03)	18592 (16.10)	0 (0.00)	3746
b4etcon	11438 (1.02)	3996 (32.72)	0 (0.00)	24948 (1.03)	9912 (30.20)	0 (0.00)	3638
b4abmfromfile	6638 (1.72)	82947 (1.58)	0 (0.00)	15221 (1.64)	190677 (1.57)	0 (0.00)	2185
piflg	6632 (1.00)	3729 (35.07)	0 (0.00)	15204 (1.00)	4921 (60.84)	0 (0.00)	2183
*ev*502	5289 (1.25)	31875 (4.10)	0 (0.00)	12724 (1.19)	56227 (5.32)	0 (0.00)	1801
elveto	4796 (1.10)	21656 (6.04)	0 (0.00)	11740 (1.08)	38823 (7.71)	0 (0.00)	1653
tdfool	4788 (1.00)	11204 (11.67)	0 (0.00)	11720 (1.00)	19556 (15.31)	0 (0.00)	1650
*tdvarnn*02	3839 (1.25)	36493 (3.58)	0 (0.00)	9623 (1.22)	71584 (4.18)	0 (0.00)	1346
TD	3839 (1.00)	63004 (2.08)	0 (0.00)	9623 (1.00)	124546 (2.40)	0 (0.00)	1346
BOX 949	3839 (1.00)	0 (130765.00)	0 (0.00)	9623 (1.00)	0 (299376.00)	0 (0.00)	1346
*icodel*14	3834 (1.00)	2212 (59.12)	0 (0.00)	9607 (1.00)	2952 (101.42)	0 (0.00)	1344
*cos*3*d*	3631 (1.06)	8414 (15.54)	0 (0.00)	9048 (1.06)	22364 (13.39)	0 (0.00)	1267
*layv*4 949	3631 (1.00)	0 (130765.00)	0 (0.00)	9048 (1.00)	2 (149688.00)	0 (0.00)	1267
zfrf	3375 (1.08)	14379 (9.09)	0 (0.00)	8387 (1.08)	35125 (8.52)	0 (0.00)	1176
zutout	3375 (1.00)	410 (318.94)	0 (0.00)	8386 (1.00)	666 (449.51)	0 (0.00)	1176
FIDUCIAL	3375 (1.00)	16735 (7.81)	0 (0.00)	8386 (1.00)	41211 (7.26)	0 (0.00)	1176
utcqual	3057 (1.10)	17657 (7.41)	0 (0.00)	7666 (1.09)	34405 (8.70)	0 (0.00)	1072
rsdedxcl	3057 (1.00)	0 (130765.00)	0 (0.00)	7666 (1.00)	0 (299376.00)	0 (0.00)	1072

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	
$rsdedxmax$	3057 (1.00)	0 (130765.00)	0 (0.00)	7666 (1.00)	0 (299376.00)	0 (0.00)	10
$rslike$	3057 (1.00)	0 (130765.00)	0 (0.00)	7666 (1.00)	0 (299376.00)	0 (0.00)	10
$rngmom$	3057 (1.00)	14558 (8.98)	0 (0.00)	7666 (1.00)	22095 (13.55)	0 (0.00)	10
$prrf1$	2900 (1.05)	9904 (13.20)	0 (0.00)	7216 (1.06)	19715 (15.19)	0 (0.00)	10
$prrfz$	2562 (1.13)	21220 (6.16)	0 (0.00)	6429 (1.12)	38987 (7.68)	0 (0.00)	8
PRRF	2562 (1.00)	28173 (4.64)	0 (0.00)	6429 (1.00)	53273 (5.62)	0 (0.00)	8
$rtghi$	2557 (1.00)	559 (233.93)	0 (0.00)	6416 (1.00)	1401 (213.69)	0 (0.00)	8
$etghi$	2511 (1.02)	4229 (30.92)	0 (0.00)	6328 (1.01)	9998 (29.94)	0 (0.00)	8
$tgdedx1$	2401 (1.05)	14143 (9.25)	0 (0.00)	6058 (1.04)	34145 (8.77)	0 (0.00)	8
$tgdedx2$	2318 (1.04)	11539 (11.33)	0 (0.00)	5873 (1.03)	28644 (10.45)	0 (0.00)	8
tgdedx	2318 (1.00)	28329 (4.62)	0 (0.00)	5873 (1.00)	68513 (4.37)	0 (0.00)	8
$tglike1$	2250 (1.03)	14802 (8.83)	0 (0.00)	5728 (1.03)	35684 (8.39)	0 (0.00)	7
$tglike2$	2193 (1.03)	12061 (10.84)	0 (0.00)	5566 (1.03)	27771 (10.78)	0 (0.00)	7
TGLIKE	2193 (1.00)	19851 (6.59)	0 (0.00)	5566 (1.00)	47553 (6.30)	0 (0.00)	7
$tgdb4$	2122 (1.03)	10234 (12.78)	0 (0.00)	5392 (1.03)	22126 (13.53)	0 (0.00)	7
$tgdb4tip$	1662 (1.28)	39185 (3.34)	0 (0.00)	4265 (1.26)	93360 (3.21)	0 (0.00)	5
$tgdvxtip$	1408 (1.18)	25870 (5.05)	0 (0.00)	3630 (1.17)	62373 (4.80)	0 (0.00)	5
$tgdvxpi$	1306 (1.08)	21395 (6.11)	0 (0.00)	3419 (1.06)	55908 (5.35)	0 (0.00)	4
TGB4	1306 (1.00)	63423 (2.06)	0 (0.00)	3419 (1.00)	153713 (1.95)	0 (0.00)	4
$pigap$	1277 (1.02)	12243 (10.68)	0 (0.00)	3363 (1.02)	29181 (10.26)	0 (0.00)	4
KIN	**1277** (1.00)	106795 (1.22)	0 (0.00)	**3363** (1.00)	242130 (1.24)	0 (0.00)	**46**
$DELC(0.)$	**0** (1277.00)	91970 (1.42)	1277 (1277.00)	**0** (3363.00)	190582 (1.57)	3363 (3363.00)	**0**
Total Rej.	1277.00			3363.00			

Table 9: 1-Beam Normalization. Branch no. 1

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1a
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	430142
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	393489
BOX 949	116207 (1.00)	0 (130765.00)	0 (0.00)	277281 (1.00)	0 (299376.00)	0 (0.00)	393489
*icodel*14	115271 (1.01)	2212 (59.12)	0 (0.00)	275883 (1.01)	2952 (101.42)	0 (0.00)	391155
cos3d	107807 (1.07)	8414 (15.54)	0 (0.00)	255414 (1.08)	22364 (13.39)	0 (0.00)	363221
*layv*4 949	107807 (1.00)	0 (130765.00)	0 (0.00)	255412 (1.00)	2 (149688.00)	0 (0.00)	363219
zfrf	101064 (1.07)	14379 (9.09)	0 (0.00)	238805 (1.07)	35125 (8.52)	0 (0.00)	339869
zutout	101016 (1.00)	410 (318.94)	0 (0.00)	238733 (1.00)	666 (449.51)	0 (0.00)	339749
FIDUCIAL	101016 (1.00)	16735 (7.81)	0 (0.00)	238733 (1.00)	41211 (7.26)	0 (0.00)	339749
utcqual	89251 (1.13)	17657 (7.41)	0 (0.00)	214282 (1.11)	34405 (8.70)	0 (0.00)	303533
rsdedxcl	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rsdedxmax	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rslike	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
tgktim	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rngmom	89251 (1.00)	14558 (8.98)	0 (0.00)	214282 (1.00)	22095 (13.55)	0 (0.00)	303533
*prrf*1	84227 (1.06)	9904 (13.20)	0 (0.00)	202674 (1.06)	19715 (15.19)	0 (0.00)	286901
prrfz	73189 (1.15)	21220 (6.16)	0 (0.00)	180447 (1.12)	38987 (7.68)	0 (0.00)	253636
PRRF	73189 (1.00)	28173 (4.64)	0 (0.00)	180447 (1.00)	53273 (5.62)	0 (0.00)	253636
rtghi	72928 (1.00)	559 (233.93)	0 (0.00)	179687 (1.00)	1401 (213.69)	0 (0.00)	252615
etghi	70384 (1.04)	4229 (30.92)	0 (0.00)	172981 (1.04)	9998 (29.94)	0 (0.00)	243365
*tgdedx*1	62797 (1.12)	14143 (9.25)	0 (0.00)	154318 (1.12)	34145 (8.77)	0 (0.00)	217115
*tgdedx*2	56814 (1.11)	11539 (11.33)	0 (0.00)	138306 (1.12)	28644 (10.45)	0 (0.00)	195120
tgdedx	56814 (1.00)	28329 (4.62)	0 (0.00)	138306 (1.00)	68513 (4.37)	0 (0.00)	195120
*tglike*1	52390 (1.08)	14802 (8.83)	0 (0.00)	127225 (1.09)	35684 (8.39)	0 (0.00)	179615
*tglike*2	50326 (1.04)	12061 (10.84)	0 (0.00)	122029 (1.04)	27771 (10.78)	0 (0.00)	172355
TGLIKE	50326 (1.00)	19851 (6.59)	0 (0.00)	122029 (1.00)	47553 (6.30)	0 (0.00)	172355
*tgdb*4	46750 (1.08)	10234 (12.78)	0 (0.00)	113829 (1.07)	22126 (13.53)	0 (0.00)	160579
*tgdb*4*tip*	34309 (1.36)	39185 (3.34)	0 (0.00)	83311 (1.37)	93360 (3.21)	0 (0.00)	117620
tgdvxtip	28985 (1.18)	25870 (5.05)	0 (0.00)	70095 (1.19)	62373 (4.80)	0 (0.00)	99080
tgdvxpi	25797 (1.12)	21395 (6.11)	0 (0.00)	61547 (1.14)	55908 (5.35)	0 (0.00)	87344
TGB4	25797 (1.00)	63423 (2.06)	0 (0.00)	61547 (1.00)	153713 (1.95)	0 (0.00)	87344
pigap	23970 (1.08)	12243 (10.68)	0 (0.00)	57246 (1.08)	29181 (10.26)	0 (0.00)	81216
KIN	23970 (1.00)	106795 (1.22)	0 (0.00)	57246 (1.00)	242130 (1.24)	0 (0.00)	81216
tgpv	18273 (1.31)	43236 (3.02)	0 (0.00)	42458 (1.35)	118100 (2.53)	0 (0.00)	60731
bwtrs	15793 (1.16)	45189 (2.89)	0 (0.00)	36742 (1.16)	124741 (2.40)	0 (0.00)	52535
*b*4*trs*	14391 (1.10)	42550 (3.07)	0 (0.00)	33412 (1.10)	119516 (2.50)	0 (0.00)	47803
*b*4*ccd*	14377 (1.00)	954 (137.07)	0 (0.00)	33387 (1.00)	2350 (127.39)	0 (0.00)	47764
tgqualt	13964 (1.03)	3784 (34.56)	0 (0.00)	32366 (1.03)	8537 (35.07)	0 (0.00)	46330
timcon	13910 (1.00)	1296 (100.90)	0 (0.00)	32283 (1.00)	3113 (96.17)	0 (0.00)	46193
epitg	13899 (1.00)	6783 (19.28)	0 (0.00)	32250 (1.00)	21067 (14.21)	0 (0.00)	46149
tger	13891 (1.00)	1297 (100.82)	0 (0.00)	32241 (1.00)	2997 (99.89)	0 (0.00)	46132
targf	13390 (1.04)	24435 (5.35)	0 (0.00)	31105 (1.04)	67883 (4.41)	0 (0.00)	44495
ticcon	13390 (1.00)	8 (16345.60)	0 (0.00)	31104 (1.00)	31 (9657.29)	0 (0.00)	44494

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all se
$dtgttp$	13390 (1.00)	66 (1981.29)	0 (0.00)	31104 (1.00)	158 (1894.78)	0 (0.00)	44494 (1.00
$rtdif$	13273 (1.01)	3643 (35.89)	0 (0.00)	30889 (1.01)	8020 (37.33)	0 (0.00)	44162 (1.01
$epimaxk$	12853 (1.03)	13723 (9.53)	0 (0.00)	29950 (1.03)	35937 (8.33)	0 (0.00)	42803 (1.03
drp	12821 (1.00)	896 (145.94)	0 (0.00)	29874 (1.00)	2034 (147.19)	0 (0.00)	42695 (1.00
$phivtx1$	10386 (1.23)	28004 (4.67)	0 (0.00)	24207 (1.23)	66655 (4.49)	0 (0.00)	34593 (1.23
$eiccon$	10111 (1.03)	4873 (26.83)	0 (0.00)	23636 (1.02)	10101 (29.64)	0 (0.00)	33747 (1.03
$opsveto$	8677 (1.17)	34528 (3.79)	0 (0.00)	20395 (1.16)	85238 (3.51)	0 (0.00)	29072 (1.16
kic	7018 (1.24)	30450 (4.29)	0 (0.00)	16571 (1.23)	73272 (4.09)	0 (0.00)	23589 (1.23
$tggeo$	6106 (1.15)	51274 (2.55)	0 (0.00)	14503 (1.14)	120275 (2.49)	0 (0.00)	20609 (1.14
$tdedge$	5855 (1.04)	21033 (6.22)	0 (0.00)	13891 (1.04)	47074 (6.36)	0 (0.00)	19746 (1.04
$tgzfool$ 787	4548 (1.29)	29296 (4.46)	0 (0.00)	10811 (1.28)	66621 (4.49)	0 (0.00)	15359 (1.29
$upvtrs$	3971 (1.15)	15456 (8.46)	0 (0.00)	9510 (1.14)	33298 (8.99)	0 (0.00)	13481 (1.14
$rvtrs$	3957 (1.00)	2022 (64.67)	0 (0.00)	9471 (1.00)	3888 (77.00)	0 (0.00)	13428 (1.00
$tgtcon$	3903 (1.01)	7213 (18.13)	0 (0.00)	9314 (1.02)	18592 (16.10)	0 (0.00)	13217 (1.02
$b4etcon$	3803 (1.03)	3996 (32.72)	0 (0.00)	9025 (1.03)	9912 (30.20)	0 (0.00)	12828 (1.03
$b4ekz$	577 (6.59)	97865 (1.34)	0 (0.00)	1263 (7.15)	226551 (1.32)	0 (0.00)	1840 (6.97
$b4ekzic$	577 (1.00)	9278 (14.09)	0 (0.00)	1263 (1.00)	20530 (14.58)	0 (0.00)	1840 (1.00
$b4tim$	123 (4.69)	75401 (1.73)	0 (0.00)	147 (8.59)	174333 (1.72)	0 (0.00)	270 (6.81
$tgktim$	123 (1.00)	0 (130765.00)	0 (0.00)	147 (1.00)	0 (299376.00)	0 (0.00)	270 (1.00
$tgenr$	123 (1.00)	9302 (14.06)	0 (0.00)	147 (1.00)	21434 (13.97)	0 (0.00)	270 (1.00
$chi567$	49 (2.51)	97829 (1.34)	0 (0.00)	73 (2.01)	226848 (1.32)	0 (0.00)	122 (2.21
$npitg$	49 (1.00)	3784 (34.56)	0 (0.00)	73 (1.00)	8537 (35.07)	0 (0.00)	122 (1.00
$verrng$	40 (1.23)	54822 (2.39)	0 (0.00)	63 (1.16)	134477 (2.23)	0 (0.00)	103 (1.18
$chi5max$	40 (1.00)	889 (147.09)	0 (0.00)	63 (1.00)	2736 (109.42)	0 (0.00)	103 (1.00
$angli$	40 (1.00)	3580 (36.53)	0 (0.00)	63 (1.00)	8031 (37.28)	0 (0.00)	103 (1.00
$ALLKfit$	20 (2.00)	58758 (2.23)	0 (0.00)	30 (2.10)	122038 (2.45)	0 (0.00)	50 (2.06
$tpics$	16 (1.25)	21746 (6.01)	0 (0.00)	24 (1.25)	49567 (6.04)	0 (0.00)	40 (1.25
$epionk$	16 (1.00)	3445 (37.96)	0 (0.00)	24 (1.00)	10205 (29.34)	0 (0.00)	40 (1.00
$ccdpul$	2 (8.00)	88474 (1.48)	0 (0.00)	8 (3.00)	207462 (1.44)	0 (0.00)	10 (4.00
$timkf$	1 (2.00)	100513 (1.30)	0 (0.00)	5 (1.60)	229649 (1.30)	0 (0.00)	6 (1.67
$\overline{DELC}(0.)$	**0** (1.00)	38795 (3.37)	0 (0.00)	**2** (2.50)	108794 (2.75)	0 (0.00)	**2** (3.00
$cpitrs$	0 (0.00)	103517 (1.26)	0 (0.00)	2 (1.00)	259088 (1.16)	0 (0.00)	2 (1.00
$cpitail$	0 (0.00)	19191 (6.81)	0 (0.00)	2 (1.00)	48220 (6.21)	0 (0.00)	2 (1.00
$b4dedx$	0 (0.00)	55089 (2.37)	0 (0.00)	2 (1.00)	124968 (2.40)	0 (0.00)	2 (1.00
$cktrs$	0 (0.00)	21957 (5.96)	0 (0.00)	0 (2.00)	34945 (8.57)	0 (0.00)	0 (2.00
$cktail$	0 (0.00)	16531 (7.91)	0 (0.00)	0 (0.00)	25913 (11.55)	0 (0.00)	0 (0.00
PV	0 (0.00)	70893 (1.84)	0 (0.00)	0 (0.00)	174318 (1.72)	0 (0.00)	0 (0.00
$piflg$	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.00
$ev502$	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.00
$elveto$	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.00
$tdfool$	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.00
$tdvarnn02$	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.00
TD	**0** (0.00)	63004 (2.08)	0 (0.00)	**0** (0.00)	124546 (2.40)	0 (0.00)	**0** (0.00
Total Rej.		0.00			2.00		

Table 10: 1-Beam Normalization. Branch no. 2

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1a
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	430142
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	393489
BOX 949	116207 (1.00)	0 (130765.00)	0 (0.00)	277281 (1.00)	0 (299376.00)	0 (0.00)	393489
*icodel*14	115271 (1.01)	2212 (59.12)	0 (0.00)	275883 (1.01)	2952 (101.42)	0 (0.00)	391155
cos3d	107807 (1.07)	8414 (15.54)	0 (0.00)	255414 (1.08)	22364 (13.39)	0 (0.00)	363221
layv4 949	107807 (1.00)	0 (130765.00)	0 (0.00)	255412 (1.00)	2 (149688.00)	0 (0.00)	363219
zfrf	101064 (1.07)	14379 (9.09)	0 (0.00)	238805 (1.07)	35125 (8.52)	0 (0.00)	339869
zutout	101016 (1.00)	410 (318.94)	0 (0.00)	238733 (1.00)	666 (449.51)	0 (0.00)	339749
FIDUCIAL	101016 (1.00)	16735 (7.81)	0 (0.00)	238733 (1.00)	41211 (7.26)	0 (0.00)	339749
utcqual	89251 (1.13)	17657 (7.41)	0 (0.00)	214282 (1.11)	34405 (8.70)	0 (0.00)	303533
rsdedxcl	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rsdedxmax	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rslike	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
tgktim	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rngmom	89251 (1.00)	14558 (8.98)	0 (0.00)	214282 (1.00)	22095 (13.55)	0 (0.00)	303533
*prrf*1	84227 (1.06)	9904 (13.20)	0 (0.00)	202674 (1.06)	19715 (15.19)	0 (0.00)	286901
prrfz	73189 (1.15)	21220 (6.16)	0 (0.00)	180447 (1.12)	38987 (7.68)	0 (0.00)	253636
PRRF	73189 (1.00)	28173 (4.64)	0 (0.00)	180447 (1.00)	53273 (5.62)	0 (0.00)	253636
rtghi	72928 (1.00)	559 (233.93)	0 (0.00)	179687 (1.00)	1401 (213.69)	0 (0.00)	252615
etghi	70384 (1.04)	4229 (30.92)	0 (0.00)	172981 (1.04)	9998 (29.94)	0 (0.00)	243365
*tgdedx*1	62797 (1.12)	14143 (9.25)	0 (0.00)	154318 (1.12)	34145 (8.77)	0 (0.00)	217115
*tgdedx*2	56814 (1.11)	11539 (11.33)	0 (0.00)	138306 (1.12)	28644 (10.45)	0 (0.00)	195120
tgdedx	56814 (1.00)	28329 (4.62)	0 (0.00)	138306 (1.00)	68513 (4.37)	0 (0.00)	195120
*tglike*1	52390 (1.08)	14802 (8.83)	0 (0.00)	127225 (1.09)	35684 (8.39)	0 (0.00)	179615
*tglike*2	50326 (1.04)	12061 (10.84)	0 (0.00)	122029 (1.04)	27771 (10.78)	0 (0.00)	172355
TGLIKE	50326 (1.00)	19851 (6.59)	0 (0.00)	122029 (1.00)	47553 (6.30)	0 (0.00)	172355
tgdb4	46750 (1.08)	10234 (12.78)	0 (0.00)	113829 (1.07)	22126 (13.53)	0 (0.00)	160579
tgdb4tip	34309 (1.36)	39185 (3.34)	0 (0.00)	83311 (1.37)	93360 (3.21)	0 (0.00)	117620
tgdvxtip	28985 (1.18)	25870 (5.05)	0 (0.00)	70095 (1.19)	62373 (4.80)	0 (0.00)	99080
tgdvxpi	25797 (1.12)	21395 (6.11)	0 (0.00)	61547 (1.14)	55908 (5.35)	0 (0.00)	87344
TGB4	25797 (1.00)	63423 (2.06)	0 (0.00)	61547 (1.00)	153713 (1.95)	0 (0.00)	87344
pigap	23970 (1.08)	12243 (10.68)	0 (0.00)	57246 (1.08)	29181 (10.26)	0 (0.00)	81216
KIN	23970 (1.00)	106795 (1.22)	0 (0.00)	57246 (1.00)	242130 (1.24)	0 (0.00)	81216
tgpv	18273 (1.31)	43236 (3.02)	0 (0.00)	42458 (1.35)	118100 (2.53)	0 (0.00)	60731
bwtrs	15793 (1.16)	45189 (2.89)	0 (0.00)	36742 (1.16)	124741 (2.40)	0 (0.00)	52535
b4trs	14391 (1.10)	42550 (3.07)	0 (0.00)	33412 (1.10)	119516 (2.50)	0 (0.00)	47803
b4ccd	14377 (1.00)	954 (137.07)	0 (0.00)	33387 (1.00)	2350 (127.39)	0 (0.00)	47764
tgqualt	13964 (1.03)	3784 (34.56)	0 (0.00)	32366 (1.03)	8537 (35.07)	0 (0.00)	46330
timcon	13910 (1.00)	1296 (100.90)	0 (0.00)	32283 (1.00)	3113 (96.17)	0 (0.00)	46193
epitg	13899 (1.00)	6783 (19.28)	0 (0.00)	32250 (1.00)	21067 (14.21)	0 (0.00)	46149
tger	13891 (1.00)	1297 (100.82)	0 (0.00)	32241 (1.00)	2997 (99.89)	0 (0.00)	46132
targf	13390 (1.04)	24435 (5.35)	0 (0.00)	31105 (1.04)	67883 (4.41)	0 (0.00)	44495
ticcon	13390 (1.00)	8 (16345.60)	0 (0.00)	31104 (1.00)	31 (9657.29)	0 (0.00)	44494

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all s
$dtgttp$	13390 (1.00)	66 (1981.29)	0 (0.00)	31104 (1.00)	158 (1894.78)	0 (0.00)	44494 (1.0
$rtdif$	13273 (1.01)	3643 (35.89)	0 (0.00)	30889 (1.01)	8020 (37.33)	0 (0.00)	44162 (1.0
$epimaxk$	12853 (1.03)	13723 (9.53)	0 (0.00)	29950 (1.03)	35937 (8.33)	0 (0.00)	42803 (1.0
drp	12821 (1.00)	896 (145.94)	0 (0.00)	29874 (1.00)	2034 (147.19)	0 (0.00)	42695 (1.0
$phivtx1$	10386 (1.23)	28004 (4.67)	0 (0.00)	24207 (1.23)	66655 (4.49)	0 (0.00)	34593 (1.2
$eiccon$	10111 (1.03)	4873 (26.83)	0 (0.00)	23636 (1.02)	10101 (29.64)	0 (0.00)	33747 (1.0
$opsveto$	8677 (1.17)	34528 (3.79)	0 (0.00)	20395 (1.16)	85238 (3.51)	0 (0.00)	29072 (1.1
kic	7018 (1.24)	30450 (4.29)	0 (0.00)	16571 (1.23)	73272 (4.09)	0 (0.00)	23589 (1.2
$tggeo$	6106 (1.15)	51274 (2.55)	0 (0.00)	14503 (1.14)	120275 (2.49)	0 (0.00)	20609 (1.1
$tdedge$	5855 (1.04)	21033 (6.22)	0 (0.00)	13891 (1.04)	47074 (6.36)	0 (0.00)	19746 (1.0
$tgzfool$ 787	4548 (1.29)	29296 (4.46)	1 (1.00)	10811 (1.28)	66621 (4.49)	0 (0.00)	15359 (1.2
$upvtrs$	3971 (1.15)	15456 (8.46)	0 (0.00)	9510 (1.14)	33298 (8.99)	0 (0.00)	13481 (1.1
$rvtrs$	3957 (1.00)	2022 (64.67)	0 (0.00)	9471 (1.00)	3888 (77.00)	0 (0.00)	13428 (1.0
$tgtcon$	3903 (1.01)	7213 (18.13)	0 (0.00)	9314 (1.02)	18592 (16.10)	0 (0.00)	13217 (1.0
$b4etcon$	3803 (1.03)	3996 (32.72)	0 (0.00)	9025 (1.03)	9912 (30.20)	0 (0.00)	12828 (1.0
$b4ekz$	577 (6.59)	97865 (1.34)	0 (0.00)	1263 (7.15)	226551 (1.32)	0 (0.00)	1840 (6.9
$b4ekzic$	577 (1.00)	9278 (14.09)	0 (0.00)	1263 (1.00)	20530 (14.58)	0 (0.00)	1840 (1.0
$b4tim$	123 (4.69)	75401 (1.73)	0 (0.00)	147 (8.59)	174333 (1.72)	0 (0.00)	270 (6.8
$tgktim$	123 (1.00)	0 (130765.00)	0 (0.00)	147 (1.00)	0 (299376.00)	0 (0.00)	270 (1.0
$tgenr$	123 (1.00)	9302 (14.06)	0 (0.00)	147 (1.00)	21434 (13.97)	0 (0.00)	270 (1.0
$chi567$	49 (2.51)	97829 (1.34)	0 (0.00)	73 (2.01)	226848 (1.32)	0 (0.00)	122 (2.2
$npitg$	49 (1.00)	3784 (34.56)	0 (0.00)	73 (1.00)	8537 (35.07)	0 (0.00)	122 (1.0
$verrng$	40 (1.23)	54822 (2.39)	0 (0.00)	63 (1.16)	134477 (2.23)	0 (0.00)	103 (1.1
$chi5max$	40 (1.00)	889 (147.09)	0 (0.00)	63 (1.00)	2736 (109.42)	0 (0.00)	103 (1.0
$angli$	40 (1.00)	3580 (36.53)	0 (0.00)	63 (1.00)	8031 (37.28)	0 (0.00)	103 (1.0
$ALLKfit$	20 (2.00)	58758 (2.23)	0 (0.00)	30 (2.10)	122038 (2.45)	1 (1.00)	50 (2.0
$tpics$	16 (1.25)	21746 (6.01)	0 (0.00)	24 (1.25)	49567 (6.04)	0 (0.00)	40 (1.2
$epionk$	16 (1.00)	3445 (37.96)	0 (0.00)	24 (1.00)	10205 (29.34)	0 (0.00)	40 (1.0
$ccdpul$	2 (8.00)	88474 (1.48)	0 (0.00)	8 (3.00)	207462 (1.44)	1 (1.00)	10 (4.0
$timkf$	1 (2.00)	100513 (1.30)	0 (0.00)	5 (1.60)	229649 (1.30)	1 (1.00)	6 (1.6
$\overline{DELC(0.)}$	0 (1.00)	38795 (3.37)	0 (0.00)	2 (2.50)	108794 (2.75)	0 (0.00)	2 (3.0
$cpitrs$	0 (0.00)	103517 (1.26)	0 (0.00)	2 (1.00)	259088 (1.16)	0 (0.00)	2 (1.0
$cpitail$	0 (0.00)	19191 (6.81)	0 (0.00)	2 (1.00)	48220 (6.21)	0 (0.00)	2 (1.0
$b4dedx$	0 (0.00)	55089 (2.37)	0 (0.00)	2 (1.00)	124968 (2.40)	0 (0.00)	2 (1.0
$\overline{cktrs \cdot cktail}$	**0** (0.00)	104516 (1.25)	0 (0.00)	**2** (1.00)	256830 (1.17)	0 (0.00)	**2** (1.0
PV	0 (0.00)	70893 (1.84)	0 (0.00)	0 (2.00)	174318 (1.72)	0 (0.00)	0 (2.0
$piflg$	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.0
$ev502$	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.0
$elveto$	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.0
$tdfool$	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.0
$tdvarnn02$	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.0
TD	**0** (0.00)	63004 (2.08)	0 (0.00)	**0** (0.00)	124546 (2.40)	0 (0.00)	**0** (0.0
Total Rej.	0.00			2.00			

Table 11: 1-Beam Normalization. Branch no. 3

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1a
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	430142
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	393489
BOX 949	116207 (1.00)	0 (130765.00)	0 (0.00)	277281 (1.00)	0 (299376.00)	0 (0.00)	393489
*icodel*14	115271 (1.01)	2212 (59.12)	0 (0.00)	275883 (1.01)	2952 (101.42)	0 (0.00)	391155
cos3d	107807 (1.07)	8414 (15.54)	0 (0.00)	255414 (1.08)	22364 (13.39)	0 (0.00)	363221
layv4 949	107807 (1.00)	0 (130765.00)	0 (0.00)	255412 (1.00)	2 (149688.00)	0 (0.00)	363219
zfrf	101064 (1.07)	14379 (9.09)	0 (0.00)	238805 (1.07)	35125 (8.52)	0 (0.00)	339869
zutout	101016 (1.00)	410 (318.94)	0 (0.00)	238733 (1.00)	666 (449.51)	0 (0.00)	339749
FIDUCIAL	101016 (1.00)	16735 (7.81)	0 (0.00)	238733 (1.00)	41211 (7.26)	0 (0.00)	339749
utcqual	89251 (1.13)	17657 (7.41)	0 (0.00)	214282 (1.11)	34405 (8.70)	0 (0.00)	303533
rsdedxcl	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rsdedxmax	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rslike	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
tgktim	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rngmom	89251 (1.00)	14558 (8.98)	0 (0.00)	214282 (1.00)	22095 (13.55)	0 (0.00)	303533
prrf1	84227 (1.06)	9904 (13.20)	0 (0.00)	202674 (1.06)	19715 (15.19)	0 (0.00)	286901
prrfz	73189 (1.15)	21220 (6.16)	0 (0.00)	180447 (1.12)	38987 (7.68)	0 (0.00)	253636
PRRF	73189 (1.00)	28173 (4.64)	0 (0.00)	180447 (1.00)	53273 (5.62)	0 (0.00)	253636
rtghi	72928 (1.00)	559 (233.93)	0 (0.00)	179687 (1.00)	1401 (213.69)	0 (0.00)	252615
etghi	70384 (1.04)	4229 (30.92)	0 (0.00)	172981 (1.04)	9998 (29.94)	0 (0.00)	243365
tgdedx1	62797 (1.12)	14143 (9.25)	0 (0.00)	154318 (1.12)	34145 (8.77)	0 (0.00)	217115
tgdedx2	56814 (1.11)	11539 (11.33)	0 (0.00)	138306 (1.12)	28644 (10.45)	0 (0.00)	195120
tgdedx	56814 (1.00)	28329 (4.62)	0 (0.00)	138306 (1.00)	68513 (4.37)	0 (0.00)	195120
tglike1	52390 (1.08)	14802 (8.83)	0 (0.00)	127225 (1.09)	35684 (8.39)	0 (0.00)	179615
tglike2	50326 (1.04)	12061 (10.84)	0 (0.00)	122029 (1.04)	27771 (10.78)	0 (0.00)	172355
TGLIKE	50326 (1.00)	19851 (6.59)	0 (0.00)	122029 (1.00)	47553 (6.30)	0 (0.00)	172355
tgdb4	46750 (1.08)	10234 (12.78)	0 (0.00)	113829 (1.07)	22126 (13.53)	0 (0.00)	160579
tgdb4tip	34309 (1.36)	39185 (3.34)	0 (0.00)	83311 (1.37)	93360 (3.21)	0 (0.00)	117620
tgdvxtip	28985 (1.18)	25870 (5.05)	0 (0.00)	70095 (1.19)	62373 (4.80)	0 (0.00)	99080
tgdvxpi	25797 (1.12)	21395 (6.11)	0 (0.00)	61547 (1.14)	55908 (5.35)	0 (0.00)	87344
TGB4	25797 (1.00)	63423 (2.06)	0 (0.00)	61547 (1.00)	153713 (1.95)	0 (0.00)	87344
pigap	23970 (1.08)	12243 (10.68)	0 (0.00)	57246 (1.08)	29181 (10.26)	0 (0.00)	81216
KIN	23970 (1.00)	106795 (1.22)	0 (0.00)	57246 (1.00)	242130 (1.24)	0 (0.00)	81216
tgpv	18273 (1.31)	43236 (3.02)	0 (0.00)	42458 (1.35)	118100 (2.53)	0 (0.00)	60731
bwtrs	15793 (1.16)	45189 (2.89)	0 (0.00)	36742 (1.16)	124741 (2.40)	0 (0.00)	52535
b4trs	14391 (1.10)	42550 (3.07)	0 (0.00)	33412 (1.10)	119516 (2.50)	0 (0.00)	47803
b4ccd	14377 (1.00)	954 (137.07)	0 (0.00)	33387 (1.00)	2350 (127.39)	0 (0.00)	47764
tgqualt	13964 (1.03)	3784 (34.56)	0 (0.00)	32366 (1.03)	8537 (35.07)	0 (0.00)	46330
timcon	13910 (1.00)	1296 (100.90)	0 (0.00)	32283 (1.00)	3113 (96.17)	0 (0.00)	46193
epitg	13899 (1.00)	6783 (19.28)	0 (0.00)	32250 (1.00)	21067 (14.21)	0 (0.00)	46149
tger	13891 (1.00)	1297 (100.82)	0 (0.00)	32241 (1.00)	2997 (99.89)	0 (0.00)	46132
targf	13390 (1.04)	24435 (5.35)	0 (0.00)	31105 (1.04)	67883 (4.41)	0 (0.00)	44495
ticcon	13390 (1.00)	8 (16345.60)	0 (0.00)	31104 (1.00)	31 (9657.29)	0 (0.00)	44494

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all se...
$dtgttp$	13390 (1.00)	66 (1981.29)	0 (0.00)	31104 (1.00)	158 (1894.78)	0 (0.00)	44494 (1.00
$rtdif$	13273 (1.01)	3643 (35.89)	0 (0.00)	30889 (1.01)	8020 (37.33)	0 (0.00)	44162 (1.01
$epimaxk$	12853 (1.03)	13723 (9.53)	0 (0.00)	29950 (1.03)	35937 (8.33)	0 (0.00)	42803 (1.03
drp	12821 (1.00)	896 (145.94)	0 (0.00)	29874 (1.00)	2034 (147.19)	0 (0.00)	42695 (1.00
$phivtx1$	10386 (1.23)	28004 (4.67)	0 (0.00)	24207 (1.23)	66655 (4.49)	0 (0.00)	34593 (1.23
$eiccon$	10111 (1.03)	4873 (26.83)	0 (0.00)	23636 (1.02)	10101 (29.64)	0 (0.00)	33747 (1.03
$opsveto$	8677 (1.17)	34528 (3.79)	0 (0.00)	20395 (1.16)	85238 (3.51)	0 (0.00)	29072 (1.16
kic	7018 (1.24)	30450 (4.29)	0 (0.00)	16571 (1.23)	73272 (4.09)	0 (0.00)	23589 (1.23
$tggeo$	6106 (1.15)	51274 (2.55)	0 (0.00)	14503 (1.14)	120275 (2.49)	0 (0.00)	20609 (1.14
$tdedge$	5855 (1.04)	21033 (6.22)	0 (0.00)	13891 (1.04)	47074 (6.36)	0 (0.00)	19746 (1.04
$tgzfool$ 787	4548 (1.29)	29296 (4.46)	0 (0.00)	10811 (1.28)	66621 (4.49)	0 (0.00)	15359 (1.29
$upvtrs$	3971 (1.15)	15456 (8.46)	0 (0.00)	9510 (1.14)	33298 (8.99)	0 (0.00)	13481 (1.14
$rvtrs$	3957 (1.00)	2022 (64.67)	0 (0.00)	9471 (1.00)	3888 (77.00)	0 (0.00)	13428 (1.00
$tgtcon$	3903 (1.01)	7213 (18.13)	0 (0.00)	9314 (1.02)	18592 (16.10)	0 (0.00)	13217 (1.02
$b4etcon$	3803 (1.03)	3996 (32.72)	0 (0.00)	9025 (1.03)	9912 (30.20)	0 (0.00)	12828 (1.03
$b4ekz$	577 (6.59)	97865 (1.34)	0 (0.00)	1263 (7.15)	226551 (1.32)	0 (0.00)	1840 (6.97
$b4ekzic$	577 (1.00)	9278 (14.09)	0 (0.00)	1263 (1.00)	20530 (14.58)	0 (0.00)	1840 (1.00
$b4tim$	123 (4.69)	75401 (1.73)	0 (0.00)	147 (8.59)	174333 (1.72)	0 (0.00)	270 (6.81
$tgktim$	123 (1.00)	0 (130765.00)	0 (0.00)	147 (1.00)	0 (299376.00)	0 (0.00)	270 (1.00
$tgenr$	123 (1.00)	9302 (14.06)	0 (0.00)	147 (1.00)	21434 (13.97)	0 (0.00)	270 (1.00
$chi567$	49 (2.51)	97829 (1.34)	0 (0.00)	73 (2.01)	226848 (1.32)	0 (0.00)	122 (2.21
$npitg$	49 (1.00)	3784 (34.56)	0 (0.00)	73 (1.00)	8537 (35.07)	0 (0.00)	122 (1.00
$verrng$	40 (1.23)	54822 (2.39)	0 (0.00)	63 (1.16)	134477 (2.23)	0 (0.00)	103 (1.18
$chi5max$	40 (1.00)	889 (147.09)	0 (0.00)	63 (1.00)	2736 (109.42)	0 (0.00)	103 (1.00
$angli$	40 (1.00)	3580 (36.53)	0 (0.00)	63 (1.00)	8031 (37.28)	0 (0.00)	103 (1.00
$ALLKfit$	20 (2.00)	58758 (2.23)	0 (0.00)	30 (2.10)	122038 (2.45)	0 (0.00)	50 (2.06
$tpics$	16 (1.25)	21746 (6.01)	0 (0.00)	24 (1.25)	49567 (6.04)	0 (0.00)	40 (1.25
$epionk$	16 (1.00)	3445 (37.96)	0 (0.00)	24 (1.00)	10205 (29.34)	0 (0.00)	40 (1.00
$ccdpul$	2 (8.00)	88474 (1.48)	0 (0.00)	8 (3.00)	207462 (1.44)	0 (0.00)	10 (4.00
$timkf$	1 (2.00)	100513 (1.30)	0 (0.00)	5 (1.60)	229649 (1.30)	0 (0.00)	6 (1.67
$\overline{DELC(0.)}$	0 (1.00)	38795 (3.37)	1 (1.00)	2 (2.50)	108794 (2.75)	3 (3.00)	2 (3.00
$cpitrs$	0 (0.00)	103517 (1.26)	0 (0.00)	2 (1.00)	259088 (1.16)	0 (0.00)	2 (1.00
$cpitail$	0 (0.00)	19191 (6.81)	0 (0.00)	2 (1.00)	48220 (6.21)	0 (0.00)	2 (1.00
$b4dedx$	0 (0.00)	55089 (2.37)	0 (0.00)	2 (1.00)	124968 (2.40)	0 (0.00)	2 (1.00
$\overline{PV \cdot TD}$	**0** (0.00)	29755 (4.39)	0 (0.00)	**2** (1.00)	70740 (4.23)	0 (0.00)	**2** (1.00
$cktrs$	0 (0.00)	21957 (5.96)	0 (0.00)	0 (2.00)	34945 (8.57)	0 (0.00)	0 (2.00
$cktail$	**0** (0.00)	16531 (7.91)	0 (0.00)	**0** (0.00)	25913 (11.55)	0 (0.00)	**0** (0.00
Total Rej.	0.00			2.00			

Table 12: 1-Beam Normalization. Branch no. 4

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1a
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	430142
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	393489
BOX 949	116207 (1.00)	0 (130765.00)	0 (0.00)	277281 (1.00)	0 (299376.00)	0 (0.00)	393489
*icodel*14	115271 (1.01)	2212 (59.12)	0 (0.00)	275883 (1.01)	2952 (101.42)	0 (0.00)	391155
cos3d	107807 (1.07)	8414 (15.54)	0 (0.00)	255414 (1.08)	22364 (13.39)	0 (0.00)	363221
layv4 949	107807 (1.00)	0 (130765.00)	0 (0.00)	255412 (1.00)	2 (149688.00)	0 (0.00)	363219
zfrf	101064 (1.07)	14379 (9.09)	0 (0.00)	238805 (1.07)	35125 (8.52)	0 (0.00)	339869
zutout	101016 (1.00)	410 (318.94)	0 (0.00)	238733 (1.00)	666 (449.51)	0 (0.00)	339749
FIDUCIAL	101016 (1.00)	16735 (7.81)	0 (0.00)	238733 (1.00)	41211 (7.26)	0 (0.00)	339749
utcqual	89251 (1.13)	17657 (7.41)	0 (0.00)	214282 (1.11)	34405 (8.70)	0 (0.00)	303533
rsdedxcl	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rsdedxmax	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rslike	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
tgktim	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rngmom	89251 (1.00)	14558 (8.98)	0 (0.00)	214282 (1.00)	22095 (13.55)	0 (0.00)	303533
prrf1	84227 (1.06)	9904 (13.20)	0 (0.00)	202674 (1.06)	19715 (15.19)	0 (0.00)	286901
prrfz	73189 (1.15)	21220 (6.16)	0 (0.00)	180447 (1.12)	38987 (7.68)	0 (0.00)	253636
PRRF	73189 (1.00)	28173 (4.64)	0 (0.00)	180447 (1.00)	53273 (5.62)	0 (0.00)	253636
rtghi	72928 (1.00)	559 (233.93)	0 (0.00)	179687 (1.00)	1401 (213.69)	0 (0.00)	252615
etghi	70384 (1.04)	4229 (30.92)	0 (0.00)	172981 (1.04)	9998 (29.94)	0 (0.00)	243365
tgdedx1	62797 (1.12)	14143 (9.25)	0 (0.00)	154318 (1.12)	34145 (8.77)	0 (0.00)	217115
tgdedx2	56814 (1.11)	11539 (11.33)	0 (0.00)	138306 (1.12)	28644 (10.45)	0 (0.00)	195120
tgdedx	56814 (1.00)	28329 (4.62)	0 (0.00)	138306 (1.00)	68513 (4.37)	0 (0.00)	195120
tglike1	52390 (1.08)	14802 (8.83)	0 (0.00)	127225 (1.09)	35684 (8.39)	0 (0.00)	179615
tglike2	50326 (1.04)	12061 (10.84)	0 (0.00)	122029 (1.04)	27771 (10.78)	0 (0.00)	172355
TGLIKE	50326 (1.00)	19851 (6.59)	0 (0.00)	122029 (1.00)	47553 (6.30)	0 (0.00)	172355
tgdb4	46750 (1.08)	10234 (12.78)	0 (0.00)	113829 (1.07)	22126 (13.53)	0 (0.00)	160579
tgdb4tip	34309 (1.36)	39185 (3.34)	0 (0.00)	83311 (1.37)	93360 (3.21)	0 (0.00)	117620
tgdvxtip	28985 (1.18)	25870 (5.05)	0 (0.00)	70095 (1.19)	62373 (4.80)	0 (0.00)	99080
tgdvxpi	25797 (1.12)	21395 (6.11)	0 (0.00)	61547 (1.14)	55908 (5.35)	0 (0.00)	87344
TGB4	25797 (1.00)	63423 (2.06)	0 (0.00)	61547 (1.00)	153713 (1.95)	0 (0.00)	87344
pigap	23970 (1.08)	12243 (10.68)	0 (0.00)	57246 (1.08)	29181 (10.26)	0 (0.00)	81216
KIN	23970 (1.00)	106795 (1.22)	0 (0.00)	57246 (1.00)	242130 (1.24)	0 (0.00)	81216
tgpv	18273 (1.31)	43236 (3.02)	0 (0.00)	42458 (1.35)	118100 (2.53)	0 (0.00)	60731
bwtrs	15793 (1.16)	45189 (2.89)	0 (0.00)	36742 (1.16)	124741 (2.40)	0 (0.00)	52535
b4trs	14391 (1.10)	42550 (3.07)	0 (0.00)	33412 (1.10)	119516 (2.50)	0 (0.00)	47803
b4ccd	14377 (1.00)	954 (137.07)	0 (0.00)	33387 (1.00)	2350 (127.39)	0 (0.00)	47764
tgqualt	13964 (1.03)	3784 (34.56)	0 (0.00)	32366 (1.03)	8537 (35.07)	0 (0.00)	46330
timcon	13910 (1.00)	1296 (100.90)	0 (0.00)	32283 (1.00)	3113 (96.17)	0 (0.00)	46193
epitg	13899 (1.00)	6783 (19.28)	0 (0.00)	32250 (1.00)	21067 (14.21)	0 (0.00)	46149
tger	13891 (1.00)	1297 (100.82)	0 (0.00)	32241 (1.00)	2997 (99.89)	0 (0.00)	46132
targf	13390 (1.04)	24435 (5.35)	0 (0.00)	31105 (1.04)	67883 (4.41)	0 (0.00)	44495
ticcon	13390 (1.00)	8 (16345.60)	0 (0.00)	31104 (1.00)	31 (9657.29)	0 (0.00)	44494

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all
$dtgttp$	13390 (1.00)	66 (1981.29)	0 (0.00)	31104 (1.00)	158 (1894.78)	0 (0.00)	44494 (1.
$rtdif$	13273 (1.01)	3643 (35.89)	0 (0.00)	30889 (1.01)	8020 (37.33)	0 (0.00)	44162 (1.
$epimaxk$	12853 (1.03)	13723 (9.53)	0 (0.00)	29950 (1.03)	35937 (8.33)	0 (0.00)	42803 (1.
drp	12821 (1.00)	896 (145.94)	0 (0.00)	29874 (1.00)	2034 (147.19)	0 (0.00)	42695 (1.
$phivtx1$	10386 (1.23)	28004 (4.67)	0 (0.00)	24207 (1.23)	66655 (4.49)	0 (0.00)	34593 (1.
$eiccon$	10111 (1.03)	4873 (26.83)	0 (0.00)	23636 (1.02)	10101 (29.64)	0 (0.00)	33747 (1.
$opsveto$	8677 (1.17)	34528 (3.79)	0 (0.00)	20395 (1.16)	85238 (3.51)	0 (0.00)	29072 (1.
kic	7018 (1.24)	30450 (4.29)	0 (0.00)	16571 (1.23)	73272 (4.09)	0 (0.00)	23589 (1.
$tggeo$	6106 (1.15)	51274 (2.55)	0 (0.00)	14503 (1.14)	120275 (2.49)	0 (0.00)	20609 (1.
$tdedge$	5855 (1.04)	21033 (6.22)	0 (0.00)	13891 (1.04)	47074 (6.36)	0 (0.00)	19746 (1.
$tgzfool$ 787	4548 (1.29)	29296 (4.46)	0 (0.00)	10811 (1.28)	66621 (4.49)	0 (0.00)	15359 (1.
$upvtrs$	3971 (1.15)	15456 (8.46)	0 (0.00)	9510 (1.14)	33298 (8.99)	0 (0.00)	13481 (1.
$rvtrs$	3957 (1.00)	2022 (64.67)	0 (0.00)	9471 (1.00)	3888 (77.00)	0 (0.00)	13428 (1.
$tgtcon$	3903 (1.01)	7213 (18.13)	0 (0.00)	9314 (1.02)	18592 (16.10)	0 (0.00)	13217 (1.
$b4etcon$	3803 (1.03)	3996 (32.72)	0 (0.00)	9025 (1.03)	9912 (30.20)	0 (0.00)	12828 (1.
$b4ekz$	577 (6.59)	97865 (1.34)	0 (0.00)	1263 (7.15)	226551 (1.32)	0 (0.00)	1840 (6.
$b4ekzic$	577 (1.00)	9278 (14.09)	0 (0.00)	1263 (1.00)	20530 (14.58)	0 (0.00)	1840 (1.
$b4tim$	123 (4.69)	75401 (1.73)	0 (0.00)	147 (8.59)	174333 (1.72)	0 (0.00)	270 (6.
$tgktim$	123 (1.00)	0 (130765.00)	0 (0.00)	147 (1.00)	0 (299376.00)	0 (0.00)	270 (1.
$tgenr$	123 (1.00)	9302 (14.06)	0 (0.00)	147 (1.00)	21434 (13.97)	0 (0.00)	270 (1.
$chi567$	49 (2.51)	97829 (1.34)	0 (0.00)	73 (2.01)	226848 (1.32)	0 (0.00)	122 (2.
$npitg$	49 (1.00)	3784 (34.56)	0 (0.00)	73 (1.00)	8537 (35.07)	0 (0.00)	122 (1.
$verrng$	40 (1.23)	54822 (2.39)	0 (0.00)	63 (1.16)	134477 (2.23)	0 (0.00)	103 (1.
$chi5max$	40 (1.00)	889 (147.09)	0 (0.00)	63 (1.00)	2736 (109.42)	0 (0.00)	103 (1.
$angli$	40 (1.00)	3580 (36.53)	0 (0.00)	63 (1.00)	8031 (37.28)	0 (0.00)	103 (1.
$ALLKfit$	20 (2.00)	58758 (2.23)	0 (0.00)	30 (2.10)	122038 (2.45)	0 (0.00)	50 (2.
$tpics$	16 (1.25)	21746 (6.01)	0 (0.00)	24 (1.25)	49567 (6.04)	0 (0.00)	40 (1.
$epionk$	16 (1.00)	3445 (37.96)	0 (0.00)	24 (1.00)	10205 (29.34)	0 (0.00)	40 (1.
$ccdpul$	2 (8.00)	88474 (1.48)	0 (0.00)	8 (3.00)	207462 (1.44)	1 (1.00)	10 (4.
$timkf$	1 (2.00)	100513 (1.30)	0 (0.00)	5 (1.60)	229649 (1.30)	0 (0.00)	6 (1.
$\overline{DELC(0.)}$	0 (1.00)	38795 (3.37)	0 (0.00)	2 (2.50)	108794 (2.75)	0 (0.00)	2 (3.
$cktrs$	0 (0.00)	21957 (5.96)	0 (0.00)	0 (2.00)	34945 (8.57)	0 (0.00)	0 (2.
$cktail$	0 (0.00)	16531 (7.91)	0 (0.00)	0 (0.00)	25913 (11.55)	0 (0.00)	0 (0.
$pv(not\ tg)$	0 (0.00)	42033 (3.11)	0 (0.00)	0 (0.00)	92956 (3.22)	0 (0.00)	0 (0.
$piflg$	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.
$ev502$	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.
$elveto$	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.
$tdfool$	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.
$tdvarnn02$	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.
TD	0 (0.00)	63004 (2.08)	0 (0.00)	0 (0.00)	124546 (2.40)	0 (0.00)	0 (0.
$\overline{cpitrs \cdot cpitail}$	**0** (0.00)	27134 (4.82)	0 (0.00)	**0** (0.00)	39975 (7.49)	0 (0.00)	**0** (0.
$b4dedx$	**0** (0.00)	55089 (2.37)	0 (0.00)	**0** (0.00)	124968 (2.40)	0 (0.00)	**0** (0.
Total Rej.	0.00			0.00			

Table 13: 1-Beam Normalization. Branch no. 5

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1a
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	430142
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	430142
rngmom	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	0 (0.00)	393489
BOX 949	116207 (1.00)	0 (130765.00)	0 (0.00)	277281 (1.00)	0 (299376.00)	0 (0.00)	393489
*icodel*14	115271 (1.01)	2212 (59.12)	0 (0.00)	275883 (1.01)	2952 (101.42)	0 (0.00)	391155
cos3d	107807 (1.07)	8414 (15.54)	0 (0.00)	255414 (1.08)	22364 (13.39)	0 (0.00)	363221
*layv*4 949	107807 (1.00)	0 (130765.00)	0 (0.00)	255412 (1.00)	2 (149688.00)	0 (0.00)	363219
zfrf	101064 (1.07)	14379 (9.09)	0 (0.00)	238805 (1.07)	35125 (8.52)	0 (0.00)	339869
zutout	101016 (1.00)	410 (318.94)	0 (0.00)	238733 (1.00)	666 (449.51)	0 (0.00)	339749
FIDUCIAL	101016 (1.00)	16735 (7.81)	0 (0.00)	238733 (1.00)	41211 (7.26)	0 (0.00)	339749
utcqual	89251 (1.13)	17657 (7.41)	0 (0.00)	214282 (1.11)	34405 (8.70)	0 (0.00)	303533
rsdedxcl	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rsdedxmax	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rslike	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
tgktim	89251 (1.00)	0 (130765.00)	0 (0.00)	214282 (1.00)	0 (299376.00)	0 (0.00)	303533
rngmom	89251 (1.00)	14558 (8.98)	0 (0.00)	214282 (1.00)	22095 (13.55)	0 (0.00)	303533
*prrf*1	84227 (1.06)	9904 (13.20)	0 (0.00)	202674 (1.06)	19715 (15.19)	0 (0.00)	286901
prrfz	73189 (1.15)	21220 (6.16)	0 (0.00)	180447 (1.12)	38987 (7.68)	0 (0.00)	253636
PRRF	73189 (1.00)	28173 (4.64)	0 (0.00)	180447 (1.00)	53273 (5.62)	0 (0.00)	253636
rtghi	72928 (1.00)	559 (233.93)	0 (0.00)	179687 (1.00)	1401 (213.69)	0 (0.00)	252615
etghi	70384 (1.04)	4229 (30.92)	0 (0.00)	172981 (1.04)	9998 (29.94)	0 (0.00)	243365
*tgdedx*1	62797 (1.12)	14143 (9.25)	0 (0.00)	154318 (1.12)	34145 (8.77)	0 (0.00)	217115
*tgdedx*2	56814 (1.11)	11539 (11.33)	0 (0.00)	138306 (1.12)	28644 (10.45)	0 (0.00)	195120
tgdedx	56814 (1.00)	28329 (4.62)	0 (0.00)	138306 (1.00)	68513 (4.37)	0 (0.00)	195120
*tglike*1	52390 (1.08)	14802 (8.83)	0 (0.00)	127225 (1.09)	35684 (8.39)	0 (0.00)	179615
*tglike*2	50326 (1.04)	12061 (10.84)	0 (0.00)	122029 (1.04)	27771 (10.78)	0 (0.00)	172355
TGLIKE	50326 (1.00)	19851 (6.59)	0 (0.00)	122029 (1.00)	47553 (6.30)	0 (0.00)	172355
*tgdb*4	46750 (1.08)	10234 (12.78)	0 (0.00)	113829 (1.07)	22126 (13.53)	0 (0.00)	160579
tgdb4tip	34309 (1.36)	39185 (3.34)	0 (0.00)	83311 (1.37)	93360 (3.21)	0 (0.00)	117620
tgdvxtip	28985 (1.18)	25870 (5.05)	0 (0.00)	70095 (1.19)	62373 (4.80)	0 (0.00)	99080
tgdvxpi	25797 (1.12)	21395 (6.11)	0 (0.00)	61547 (1.14)	55908 (5.35)	0 (0.00)	87344
TGB4	25797 (1.00)	63423 (2.06)	0 (0.00)	61547 (1.00)	153713 (1.95)	0 (0.00)	87344
pigap	23970 (1.08)	12243 (10.68)	0 (0.00)	57246 (1.08)	29181 (10.26)	0 (0.00)	81216
KIN	23970 (1.00)	106795 (1.22)	0 (0.00)	57246 (1.00)	242130 (1.24)	0 (0.00)	81216
tgpv	18273 (1.31)	43236 (3.02)	0 (0.00)	42458 (1.35)	118100 (2.53)	0 (0.00)	60731
bwtrs	15793 (1.16)	45189 (2.89)	0 (0.00)	36742 (1.16)	124741 (2.40)	0 (0.00)	52535
b4trs	14391 (1.10)	42550 (3.07)	0 (0.00)	33412 (1.10)	119516 (2.50)	0 (0.00)	47803
b4ccd	14377 (1.00)	954 (137.07)	0 (0.00)	33387 (1.00)	2350 (127.39)	0 (0.00)	47764
tgqualt	13964 (1.03)	3784 (34.56)	0 (0.00)	32366 (1.03)	8537 (35.07)	0 (0.00)	46330
timcon	13910 (1.00)	1296 (100.90)	0 (0.00)	32283 (1.00)	3113 (96.17)	0 (0.00)	46193
epitg	13899 (1.00)	6783 (19.28)	0 (0.00)	32250 (1.00)	21067 (14.21)	0 (0.00)	46149
tger	13891 (1.00)	1297 (100.82)	0 (0.00)	32241 (1.00)	2997 (99.89)	0 (0.00)	46132
targf	13390 (1.04)	24435 (5.35)	0 (0.00)	31105 (1.04)	67883 (4.41)	0 (0.00)	44495
ticcon	13390 (1.00)	8 (16345.60)	0 (0.00)	31104 (1.00)	31 (9657.29)	0 (0.00)	44494

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all se
$dtgttp$	13390 (1.00)	66 (1981.29)	0 (0.00)	31104 (1.00)	158 (1894.78)	0 (0.00)	44494 (1.00
$rtdif$	13273 (1.01)	3643 (35.89)	0 (0.00)	30889 (1.01)	8020 (37.33)	0 (0.00)	44162 (1.01
$epimaxk$	12853 (1.03)	13723 (9.53)	0 (0.00)	29950 (1.03)	35937 (8.33)	0 (0.00)	42803 (1.03
drp	12821 (1.00)	896 (145.94)	0 (0.00)	29874 (1.00)	2034 (147.19)	0 (0.00)	42695 (1.00
$phivtx1$	10386 (1.23)	28004 (4.67)	0 (0.00)	24207 (1.23)	66655 (4.49)	0 (0.00)	34593 (1.23
$eiccon$	10111 (1.03)	4873 (26.83)	0 (0.00)	23636 (1.02)	10101 (29.64)	0 (0.00)	33747 (1.03
$opsveto$	8677 (1.17)	34528 (3.79)	0 (0.00)	20395 (1.16)	85238 (3.51)	0 (0.00)	29072 (1.16
kic	7018 (1.24)	30450 (4.29)	0 (0.00)	16571 (1.23)	73272 (4.09)	0 (0.00)	23589 (1.23
$tggeo$	6106 (1.15)	51274 (2.55)	0 (0.00)	14503 (1.14)	120275 (2.49)	0 (0.00)	20609 (1.14
$tdedge$	5855 (1.04)	21033 (6.22)	0 (0.00)	13891 (1.04)	47074 (6.36)	0 (0.00)	19746 (1.04
$tgzfool$ 787	4548 (1.29)	29296 (4.46)	0 (0.00)	10811 (1.28)	66621 (4.49)	0 (0.00)	15359 (1.29
$upvtrs$	3971 (1.15)	15456 (8.46)	0 (0.00)	9510 (1.14)	33298 (8.99)	0 (0.00)	13481 (1.14
$rvtrs$	3957 (1.00)	2022 (64.67)	0 (0.00)	9471 (1.00)	3888 (77.00)	0 (0.00)	13428 (1.00
$tgtcon$	3903 (1.01)	7213 (18.13)	0 (0.00)	9314 (1.02)	18592 (16.10)	0 (0.00)	13217 (1.02
$b4etcon$	3803 (1.03)	3996 (32.72)	0 (0.00)	9025 (1.03)	9912 (30.20)	0 (0.00)	12828 (1.03
$b4ekz$	577 (6.59)	97865 (1.34)	0 (0.00)	1263 (7.15)	226551 (1.32)	0 (0.00)	1840 (6.97
$b4ekzic$	577 (1.00)	9278 (14.09)	0 (0.00)	1263 (1.00)	20530 (14.58)	0 (0.00)	1840 (1.00
$b4tim$	123 (4.69)	75401 (1.73)	0 (0.00)	147 (8.59)	174333 (1.72)	0 (0.00)	270 (6.81
$tgktim$	123 (1.00)	0 (130765.00)	0 (0.00)	147 (1.00)	0 (299376.00)	0 (0.00)	270 (1.00
$tgenr$	123 (1.00)	9302 (14.06)	0 (0.00)	147 (1.00)	21434 (13.97)	0 (0.00)	270 (1.00
$chi567$	49 (2.51)	97829 (1.34)	0 (0.00)	73 (2.01)	226848 (1.32)	0 (0.00)	122 (2.21
$npitg$	49 (1.00)	3784 (34.56)	0 (0.00)	73 (1.00)	8537 (35.07)	0 (0.00)	122 (1.00
$verrng$	40 (1.23)	54822 (2.39)	0 (0.00)	63 (1.16)	134477 (2.23)	0 (0.00)	103 (1.18
$chi5max$	40 (1.00)	889 (147.09)	0 (0.00)	63 (1.00)	2736 (109.42)	0 (0.00)	103 (1.00
$angli$	40 (1.00)	3580 (36.53)	0 (0.00)	63 (1.00)	8031 (37.28)	0 (0.00)	103 (1.00
$ALLKfit$	20 (2.00)	58758 (2.23)	0 (0.00)	30 (2.10)	122038 (2.45)	0 (0.00)	50 (2.06
$tpics$	16 (1.25)	21746 (6.01)	0 (0.00)	24 (1.25)	49567 (6.04)	0 (0.00)	40 (1.25
$epionk$	16 (1.00)	3445 (37.96)	0 (0.00)	24 (1.00)	10205 (29.34)	0 (0.00)	40 (1.00
$ccdpul$	2 (8.00)	88474 (1.48)	0 (0.00)	8 (3.00)	207462 (1.44)	0 (0.00)	10 (4.00
$timkf$	1 (2.00)	100513 (1.30)	0 (0.00)	5 (1.60)	229649 (1.30)	0 (0.00)	6 (1.67
$\overline{DELC(0.)}$	0 (1.00)	38795 (3.37)	0 (0.00)	2 (2.50)	108794 (2.75)	0 (0.00)	2 (3.00
$cktrs$	0 (0.00)	21957 (5.96)	0 (0.00)	0 (2.00)	34945 (8.57)	0 (0.00)	0 (2.00
$cktail$	0 (0.00)	16531 (7.91)	0 (0.00)	0 (0.00)	25913 (11.55)	0 (0.00)	0 (0.00
$pv(not\ tg)$	0 (0.00)	42033 (3.11)	0 (0.00)	0 (0.00)	92956 (3.22)	0 (0.00)	0 (0.00
$piflg$	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.00
$ev502$	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.00
$elveto$	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.00
$tdfool$	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.00
$tdvarnn02$	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.00
TD	0 (0.00)	63004 (2.08)	0 (0.00)	0 (0.00)	124546 (2.40)	0 (0.00)	0 (0.00
$\overline{b4dedx}$	**0** (0.00)	75676 (1.73)	0 (0.00)	**0** (0.00)	174408 (1.72)	0 (0.00)	**0** (0.00
$cpitrs$	0 (0.00)	103517 (1.26)	0 (0.00)	0 (0.00)	259088 (1.16)	0 (0.00)	0 (0.00
$cpitail$	**0** (0.00)	19191 (6.81)	0 (0.00)	**0** (0.00)	48220 (6.21)	0 (0.00)	**0** (0.00
Total Rej.		0.00			0.00		

Table 14: 2-Beam Rejection. Branch no. 1

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 all...
BOX 949	130765 (0.00)	0 (130765.00)	1 (1.00)	299376 (0.00)	0 (299376.00)	1 (1.0
$rsdedxmax$	130765 (1.00)	0 (130765.00)	1 (1.00)	299376 (1.00)	0 (299376.00)	1 (1.0
$rsdedxcl$	130765 (1.00)	0 (130765.00)	1 (1.00)	299376 (1.00)	0 (299376.00)	1 (1.0
$rslike$	130765 (1.00)	0 (130765.00)	1 (1.00)	299376 (1.00)	0 (299376.00)	1 (1.0
$rngmom$	116207 (1.13)	14558 (8.98)	1 (1.00)	277281 (1.08)	22095 (13.55)	1 (1.0
$pv(not\ tg)$	78690 (1.48)	42033 (3.11)	8 (8.00)	190954 (1.45)	92956 (3.22)	14 (14.0
$piflg$	77831 (1.01)	3729 (35.07)	1 (1.00)	189865 (1.01)	4921 (60.84)	1 (1.0
$ev502$	61735 (1.26)	31875 (4.10)	1 (1.00)	158100 (1.20)	56227 (5.32)	1 (1.0
$elveto$	55650 (1.11)	21656 (6.04)	1 (1.00)	144475 (1.09)	38823 (7.71)	1 (1.0
$tdfool$	55549 (1.00)	11204 (11.67)	1 (1.00)	144209 (1.00)	19556 (15.31)	1 (1.0
$tdvarnn02$	44977 (1.24)	36493 (3.58)	1 (1.00)	118082 (1.22)	71584 (4.18)	1 (1.0
TD	44977 (1.00)	63004 (2.08)	1 (1.00)	118082 (1.00)	124546 (2.40)	1 (1.0
$b4dedx$	23410 (1.92)	55089 (2.37)	1 (1.00)	65498 (1.80)	124968 (2.40)	2 (2.0
$tgqualt$	22776 (1.03)	3784 (34.56)	1 (1.00)	63814 (1.03)	8537 (35.07)	1 (1.0
$timcon$	22529 (1.01)	1296 (100.90)	1 (1.00)	63050 (1.01)	3113 (96.17)	1 (1.0
$DELC(0.)$	12056 (1.87)	91970 (1.42)	1 (1.00)	39312 (1.60)	190582 (1.57)	1 (1.0
$tger$	11961 (1.01)	1297 (100.82)	1 (1.00)	39035 (1.01)	2997 (99.89)	1 (1.0
$tgzfool$ 787	8859 (1.35)	29296 (4.46)	2 (2.00)	29470 (1.32)	66621 (4.49)	2 (2.0
$upvtrs$	7702 (1.15)	15456 (8.46)	1 (1.00)	26130 (1.13)	33298 (8.99)	1 (1.0
$rvtrs$	7647 (1.01)	2022 (64.67)	1 (1.00)	25995 (1.01)	3888 (77.00)	1 (1.0
$b4etcon$	7531 (1.02)	3996 (32.72)	1 (1.00)	25604 (1.02)	9912 (30.20)	1 (1.0
$\overline{b4trs \cdot b4ccd\ AND\ kpigap}$	3562 (2.11)	114831 (1.14)	8 (8.00)	12087 (2.12)	251265 (1.19)	21 (21.0
$cpitrs$	125 (28.50)	103517 (1.26)	13 (13.00)	283 (42.71)	259088 (1.16)	20 (20.0
$cpitail$	123 (1.02)	19191 (6.81)	1 (1.00)	277 (1.02)	48220 (6.21)	1 (1.0
$1.1 < b4ars\_atc < 5.0$	**80** (1.54)	75090 (1.74)	1 (1.00)	**167** (1.66)	173053 (1.73)	3 (3.0
$bwtrs$	1 (80.00)	45189 (2.89)	9 (9.00)	3 (55.67)	124741 (2.40)	21 (21.0
$cktrs$	1 (1.00)	21957 (5.96)	1 (1.00)	1 (3.00)	34945 (8.57)	3 (3.0
$cktail$	**1** (1.00)	16531 (7.91)	1 (1.00)	**1** (1.00)	25913 (11.55)	1 (1.0
Total Rej.	80.00			167.00		

Table 15: 2-Beam Rejection. Branch no. 2

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	2 (1.
$rsdedxmax$	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	2 (1.
$rsdedxcl$	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	2 (1.
$rslike$	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	2 (1.
$rngmom$	116207 (1.13)	14558 (8.98)	0 (0.00)	277281 (1.08)	22095 (13.55)	2 (1.
$pv(not\ tg)$	78690 (1.48)	42033 (3.11)	5 (5.00)	190954 (1.45)	92956 (3.22)	7 (3.
$piflg$	77831 (1.01)	3729 (35.07)	0 (0.00)	189865 (1.01)	4921 (60.84)	2 (1.
$ev502$	61735 (1.26)	31875 (4.10)	0 (0.00)	158100 (1.20)	56227 (5.32)	2 (1.
$elveto$	55650 (1.11)	21656 (6.04)	0 (0.00)	144475 (1.09)	38823 (7.71)	2 (1.
$tdfool$	55549 (1.00)	11204 (11.67)	0 (0.00)	144209 (1.00)	19556 (15.31)	2 (1.
$tdvarnn02$	44977 (1.24)	36493 (3.58)	0 (0.00)	118082 (1.22)	71584 (4.18)	2 (1.
TD	44977 (1.00)	63004 (2.08)	0 (0.00)	118082 (1.00)	124546 (2.40)	2 (1.
$b4dedx$	23410 (1.92)	55089 (2.37)	0 (0.00)	65498 (1.80)	124968 (2.40)	2 (1.
$tgqualt$	22776 (1.03)	3784 (34.56)	0 (0.00)	63814 (1.03)	8537 (35.07)	2 (1.
$timcon$	22529 (1.01)	1296 (100.90)	0 (0.00)	63050 (1.01)	3113 (96.17)	2 (1.
$DELC(0.)$	12056 (1.87)	91970 (1.42)	1 (1.00)	39312 (1.60)	190582 (1.57)	2 (1.
$tger$	11961 (1.01)	1297 (100.82)	0 (0.00)	39035 (1.01)	2997 (99.89)	2 (1.
$tgzfool$ 787	8859 (1.35)	29296 (4.46)	0 (0.00)	29470 (1.32)	66621 (4.49)	2 (1.
$upvtrs$	7702 (1.15)	15456 (8.46)	0 (0.00)	26130 (1.13)	33298 (8.99)	3 (1.
$rvtrs$	7647 (1.01)	2022 (64.67)	0 (0.00)	25995 (1.01)	3888 (77.00)	2 (1.
$b4etcon$	7531 (1.02)	3996 (32.72)	0 (0.00)	25604 (1.02)	9912 (30.20)	2 (1.
$\overline{b4trs \cdot b4ccd}\ AND\ kpigap$	3562 (2.11)	114831 (1.14)	11 (11.00)	12087 (2.12)	251265 (1.19)	21 (10.
$cktrs$	3402 (1.05)	21957 (5.96)	0 (0.00)	11696 (1.03)	34945 (8.57)	2 (1.
$cktail$	3379 (1.01)	16531 (7.91)	0 (0.00)	11645 (1.00)	25913 (11.55)	2 (1.
$b4ars\_atc < 1.1$	2216 (1.52)	56497 (2.31)	1 (1.00)	7873 (1.48)	128555 (2.33)	3 (1.
$tgz > -7.0$	**2216** (1.00)	17940 (7.29)	0 (0.00)	**7873** (1.00)	40586 (7.38)	2 (1.
$bwtrs$	30 (73.87)	45189 (2.89)	5 (5.00)	70 (112.47)	124741 (2.40)	33 (16.
$cpitrs$	0 (30.00)	103517 (1.26)	23 (23.00)	3 (23.33)	259088 (1.16)	48 (24.0
$cpitail$	**0** (0.00)	19191 (6.81)	0 (0.00)	**2** (1.50)	48220 (6.21)	3 (1.
Total Rej.	2216.00			3936.50		

Table 16: 2-Beam Normalization. Branch no. 1

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	4
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
pv(not tg)	88732 (1.47)	42033 (3.11)	0 (0.00)	206420 (1.45)	92956 (3.22)	0 (0.00)	2
tgqualt	86262 (1.03)	3784 (34.56)	0 (0.00)	200721 (1.03)	8537 (35.07)	0 (0.00)	2
timcon	85604 (1.01)	1296 (100.90)	0 (0.00)	198913 (1.01)	3113 (96.17)	0 (0.00)	2
epitg	80925 (1.06)	6783 (19.28)	0 (0.00)	184353 (1.08)	21067 (14.21)	0 (0.00)	2
tger	80493 (1.01)	1297 (100.82)	0 (0.00)	183347 (1.01)	2997 (99.89)	0 (0.00)	2
ticcon	80491 (1.00)	8 (16345.60)	0 (0.00)	183344 (1.00)	31 (9657.29)	0 (0.00)	2
dtgttp	80487 (1.00)	66 (1981.29)	0 (0.00)	183326 (1.00)	158 (1894.78)	0 (0.00)	2
rtdif	78130 (1.03)	3643 (35.89)	0 (0.00)	178227 (1.03)	8020 (37.33)	0 (0.00)	2
drp	77508 (1.01)	896 (145.94)	0 (0.00)	176800 (1.01)	2034 (147.19)	0 (0.00)	2
eiccon	75203 (1.03)	4873 (26.83)	0 (0.00)	171905 (1.03)	10101 (29.64)	0 (0.00)	2
kic	65598 (1.15)	30450 (4.29)	0 (0.00)	147025 (1.17)	73272 (4.09)	0 (0.00)	2
tggeo	56731 (1.16)	51274 (2.55)	0 (0.00)	126701 (1.16)	120275 (2.49)	0 (0.00)	1
tgzfool 787	43735 (1.30)	29296 (4.46)	0 (0.00)	97943 (1.29)	66621 (4.49)	0 (0.00)	1
upvtrs	38730 (1.13)	15456 (8.46)	0 (0.00)	87451 (1.12)	33298 (8.99)	0 (0.00)	1
rvtrs	38518 (1.01)	2022 (64.67)	0 (0.00)	87010 (1.01)	3888 (77.00)	0 (0.00)	1
tgtcon	36873 (1.04)	7213 (18.13)	0 (0.00)	82483 (1.05)	18592 (16.10)	0 (0.00)	1
b4etcon	35956 (1.03)	3996 (32.72)	0 (0.00)	80132 (1.03)	9912 (30.20)	0 (0.00)	1
b4tim	13545 (2.65)	75401 (1.73)	0 (0.00)	26757 (2.99)	174333 (1.72)	0 (0.00)	
tgktim	13545 (1.00)	0 (130765.00)	0 (0.00)	26757 (1.00)	0 (299376.00)	0 (0.00)	
tgenr	13258 (1.02)	9302 (14.06)	0 (0.00)	26320 (1.02)	21434 (13.97)	0 (0.00)	
chi567	3758 (3.53)	97829 (1.34)	0 (0.00)	6418 (4.10)	226848 (1.32)	0 (0.00)	
npitg	3758 (1.00)	3784 (34.56)	0 (0.00)	6418 (1.00)	8537 (35.07)	0 (0.00)	
verrng	2646 (1.42)	54822 (2.39)	0 (0.00)	3982 (1.61)	134477 (2.23)	0 (0.00)	
chi5max	2646 (1.00)	889 (147.09)	0 (0.00)	3982 (1.00)	2736 (109.42)	0 (0.00)	
angli	2646 (1.00)	3580 (36.53)	0 (0.00)	3974 (1.00)	8031 (37.28)	0 (0.00)	
ALLKfit	1689 (1.57)	58758 (2.23)	0 (0.00)	2646 (1.50)	122038 (2.45)	0 (0.00)	
tpics	1444 (1.17)	21746 (6.01)	0 (0.00)	2247 (1.18)	49567 (6.04)	0 (0.00)	
epionk	1379 (1.05)	3445 (37.96)	0 (0.00)	2073 (1.08)	10205 (29.34)	0 (0.00)	
ccdpul	434 (3.18)	88474 (1.48)	0 (0.00)	638 (3.25)	207462 (1.44)	0 (0.00)	
timkf	318 (1.36)	100513 (1.30)	0 (0.00)	441 (1.45)	229649 (1.30)	0 (0.00)	
DELC(0.)	213 (1.49)	91970 (1.42)	1 (1.00)	309 (1.43)	190582 (1.57)	2 (2.00)	
b4dedx	211 (1.01)	55089 (2.37)	0 (0.00)	303 (1.02)	124968 (2.40)	0 (0.00)	
cpitrs	183 (1.15)	103517 (1.26)	0 (0.00)	219 (1.38)	259088 (1.16)	0 (0.00)	
cpitail	183 (1.00)	19191 (6.81)	0 (0.00)	219 (1.00)	48220 (6.21)	0 (0.00)	
$\overline{cktrs \cdot cktail \cdot bwtrs}$	9 (20.33)	68930 (1.90)	0 (0.00)	10 (21.90)	150600 (1.99)	0 (0.00)	
BOX 949	9 (1.00)	0 (130765.00)	0 (0.00)	10 (1.00)	0 (299376.00)	0 (0.00)	
*icodel*14	9 (1.00)	2212 (59.12)	0 (0.00)	7 (1.43)	2952 (101.42)	0 (0.00)	
cos3d	8 (1.12)	8414 (15.54)	0 (0.00)	5 (1.40)	22364 (13.39)	0 (0.00)	
layv4 949	8 (1.00)	0 (130765.00)	0 (0.00)	5 (1.00)	2 (149688.00)	0 (0.00)	
zfrf	6 (1.33)	14379 (9.09)	0 (0.00)	4 (1.25)	35125 (8.52)	0 (0.00)	
zutout	6 (1.00)	410 (318.94)	0 (0.00)	4 (1.00)	666 (449.51)	0 (0.00)	
FIDUCIAL	6 (1.00)	16735 (7.81)	0 (0.00)	4 (1.00)	41211 (7.26)	0 (0.00)	

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	p1a
utcqual	2 (3.00)	17657 (7.41)	0 (0.00)	1 (4.00)	34405 (8.70)	0 (0.00)	3 (3.33)	5206
rsdedxcl	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (430
rsdedxmax	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (430
rslike	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (430
tgktim	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (430
rngmom	0 (2.00)	14558 (8.98)	0 (0.00)	0 (1.00)	22095 (13.55)	0 (0.00)	0 (3.00)	36653
prrf1	0 (0.00)	9904 (13.20)	0 (0.00)	0 (0.00)	19715 (15.19)	0 (0.00)	0 (0.00)	29619
prrfz	0 (0.00)	21220 (6.16)	0 (0.00)	0 (0.00)	38987 (7.68)	0 (0.00)	0 (0.00)	6020
PRRF	0 (0.00)	28173 (4.64)	0 (0.00)	0 (0.00)	53273 (5.62)	0 (0.00)	0 (0.00)	8144
rtghi	0 (0.00)	559 (233.93)	0 (0.00)	0 (0.00)	1401 (213.69)	0 (0.00)	0 (0.00)	1960
etghi	0 (0.00)	4229 (30.92)	0 (0.00)	0 (0.00)	9998 (29.94)	0 (0.00)	0 (0.00)	14227
tgdedx1	0 (0.00)	14143 (9.25)	0 (0.00)	0 (0.00)	34145 (8.77)	0 (0.00)	0 (0.00)	4828
tgdedx2	0 (0.00)	11539 (11.33)	0 (0.00)	0 (0.00)	28644 (10.45)	0 (0.00)	0 (0.00)	40183
tgdedx	0 (0.00)	28329 (4.62)	0 (0.00)	0 (0.00)	68513 (4.37)	0 (0.00)	0 (0.00)	9684
tglike1	0 (0.00)	14802 (8.83)	0 (0.00)	0 (0.00)	35684 (8.39)	0 (0.00)	0 (0.00)	5048
tglike2	0 (0.00)	12061 (10.84)	0 (0.00)	0 (0.00)	27771 (10.78)	0 (0.00)	0 (0.00)	39832
TGLIKE	0 (0.00)	19851 (6.59)	0 (0.00)	0 (0.00)	47553 (6.30)	0 (0.00)	0 (0.00)	6740
tgdb4	0 (0.00)	10234 (12.78)	0 (0.00)	0 (0.00)	22126 (13.53)	0 (0.00)	0 (0.00)	32360
tgdb4tip	0 (0.00)	39185 (3.34)	0 (0.00)	0 (0.00)	93360 (3.21)	0 (0.00)	0 (0.00)	13254
tgdvxtip	0 (0.00)	25870 (5.05)	0 (0.00)	0 (0.00)	62373 (4.80)	0 (0.00)	0 (0.00)	8824
tgdvxpi	0 (0.00)	21395 (6.11)	0 (0.00)	0 (0.00)	55908 (5.35)	0 (0.00)	0 (0.00)	7730
TGB4	0 (0.00)	63423 (2.06)	0 (0.00)	0 (0.00)	153713 (1.95)	0 (0.00)	0 (0.00)	21713
pigap	0 (0.00)	12243 (10.68)	0 (0.00)	0 (0.00)	29181 (10.26)	0 (0.00)	0 (0.00)	41424
KIN	0 (0.00)	106795 (1.22)	0 (0.00)	0 (0.00)	242130 (1.24)	0 (0.00)	0 (0.00)	34892
piflg	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.00)	8650
ev502	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.00)	8810
elveto	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.00)	6047
tdfool	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.00)	30760
tdvarnn02	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.00)	10807
TD	**0** (0.00)	63004 (2.08)	0 (0.00)	**0** (0.00)	124546 (2.40)	0 (0.00)	**0** (0.00)	18755
b4trs	0 (0.00)	42550 (3.07)	0 (0.00)	0 (0.00)	119516 (2.50)	0 (0.00)	0 (0.00)	16206
b4ccd	**0** (0.00)	954 (137.07)	0 (0.00)	**0** (0.00)	2350 (127.39)	0 (0.00)	**0** (0.00)	3304
Total Rej.		0.00			0.00			

Table 17: 2-Beam Normalization. Branch no. 2

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)	4
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)	4
pv(not tg)	88732 (1.47)	42033 (3.11)	0 (0.00)	206420 (1.45)	92956 (3.22)	0 (0.00)	2
tgqualt	86262 (1.03)	3784 (34.56)	0 (0.00)	200721 (1.03)	8537 (35.07)	0 (0.00)	2
timcon	85604 (1.01)	1296 (100.90)	0 (0.00)	198913 (1.01)	3113 (96.17)	0 (0.00)	2
epitg	80925 (1.06)	6783 (19.28)	0 (0.00)	184353 (1.08)	21067 (14.21)	0 (0.00)	2
tger	80493 (1.01)	1297 (100.82)	0 (0.00)	183347 (1.01)	2997 (99.89)	0 (0.00)	2
ticcon	80491 (1.00)	8 (16345.60)	0 (0.00)	183344 (1.00)	31 (9657.29)	0 (0.00)	2
dtgttp	80487 (1.00)	66 (1981.29)	0 (0.00)	183326 (1.00)	158 (1894.78)	0 (0.00)	2
rtdif	78130 (1.03)	3643 (35.89)	0 (0.00)	178227 (1.03)	8020 (37.33)	0 (0.00)	2
drp	77508 (1.01)	896 (145.94)	0 (0.00)	176800 (1.01)	2034 (147.19)	0 (0.00)	2
eiccon	75203 (1.03)	4873 (26.83)	0 (0.00)	171905 (1.03)	10101 (29.64)	0 (0.00)	2
kic	65598 (1.15)	30450 (4.29)	0 (0.00)	147025 (1.17)	73272 (4.09)	0 (0.00)	2
tggeo	56731 (1.16)	51274 (2.55)	0 (0.00)	126701 (1.16)	120275 (2.49)	0 (0.00)	1
tgzfool 787	43735 (1.30)	29296 (4.46)	0 (0.00)	97943 (1.29)	66621 (4.49)	0 (0.00)	1
upvtrs	38730 (1.13)	15456 (8.46)	0 (0.00)	87451 (1.12)	33298 (8.99)	0 (0.00)	1
rvtrs	38518 (1.01)	2022 (64.67)	0 (0.00)	87010 (1.01)	3888 (77.00)	0 (0.00)	1
tgtcon	36873 (1.04)	7213 (18.13)	0 (0.00)	82483 (1.05)	18592 (16.10)	0 (0.00)	1
b4etcon	35956 (1.03)	3996 (32.72)	0 (0.00)	80132 (1.03)	9912 (30.20)	0 (0.00)	1
b4tim	13545 (2.65)	75401 (1.73)	0 (0.00)	26757 (2.99)	174333 (1.72)	0 (0.00)	
tgktim	13545 (1.00)	0 (130765.00)	0 (0.00)	26757 (1.00)	0 (299376.00)	0 (0.00)	
tgenr	13258 (1.02)	9302 (14.06)	0 (0.00)	26320 (1.02)	21434 (13.97)	0 (0.00)	
chi567	3758 (3.53)	97829 (1.34)	0 (0.00)	6418 (4.10)	226848 (1.32)	0 (0.00)	
npitg	3758 (1.00)	3784 (34.56)	0 (0.00)	6418 (1.00)	8537 (35.07)	0 (0.00)	
verrng	2646 (1.42)	54822 (2.39)	0 (0.00)	3982 (1.61)	134477 (2.23)	0 (0.00)	
chi5max	2646 (1.00)	889 (147.09)	0 (0.00)	3982 (1.00)	2736 (109.42)	0 (0.00)	
angli	2646 (1.00)	3580 (36.53)	0 (0.00)	3974 (1.00)	8031 (37.28)	0 (0.00)	
ALLKfit	1689 (1.57)	58758 (2.23)	0 (0.00)	2646 (1.50)	122038 (2.45)	0 (0.00)	
tpics	1444 (1.17)	21746 (6.01)	0 (0.00)	2247 (1.18)	49567 (6.04)	0 (0.00)	
epionk	1379 (1.05)	3445 (37.96)	0 (0.00)	2073 (1.08)	10205 (29.34)	0 (0.00)	
ccdpul	434 (3.18)	88474 (1.48)	0 (0.00)	638 (3.25)	207462 (1.44)	0 (0.00)	
timkf	318 (1.36)	100513 (1.30)	0 (0.00)	441 (1.45)	229649 (1.30)	0 (0.00)	
DELC(0.)	213 (1.49)	91970 (1.42)	0 (0.00)	309 (1.43)	190582 (1.57)	0 (0.00)	
b4dedx	211 (1.01)	55089 (2.37)	0 (0.00)	303 (1.02)	124968 (2.40)	0 (0.00)	
cpitrs	183 (1.15)	103517 (1.26)	0 (0.00)	219 (1.38)	259088 (1.16)	0 (0.00)	
cpitail	183 (1.00)	19191 (6.81)	0 (0.00)	219 (1.00)	48220 (6.21)	0 (0.00)	
cktrs · cktail · bwtrs	9 (20.33)	68930 (1.90)	0 (0.00)	10 (21.90)	150600 (1.99)	0 (0.00)	
BOX 949	9 (1.00)	0 (130765.00)	0 (0.00)	10 (1.00)	0 (299376.00)	0 (0.00)	
*icodel*14	9 (1.00)	2212 (59.12)	0 (0.00)	7 (1.43)	2952 (101.42)	0 (0.00)	
cos3d	8 (1.12)	8414 (15.54)	0 (0.00)	5 (1.40)	22364 (13.39)	0 (0.00)	
*layv*4 949	8 (1.00)	0 (130765.00)	0 (0.00)	5 (1.00)	2 (149688.00)	0 (0.00)	
zfrf	6 (1.33)	14379 (9.09)	0 (0.00)	4 (1.25)	35125 (8.52)	0 (0.00)	
zutout	6 (1.00)	410 (318.94)	0 (0.00)	4 (1.00)	666 (449.51)	0 (0.00)	
FIDUCIAL	6 (1.00)	16735 (7.81)	0 (0.00)	4 (1.00)	41211 (7.26)	0 (0.00)	

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	p1
utcqual	2 (3.00)	17657 (7.41)	0 (0.00)	1 (4.00)	34405 (8.70)	0 (0.00)	3 (3.33)	520
rsdedxcl	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (43
rsdedxmax	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (43
rslike	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (43
tgktim	2 (1.00)	0 (130765.00)	0 (0.00)	1 (1.00)	0 (299376.00)	0 (0.00)	3 (1.00)	0 (43
rngmom	0 (2.00)	14558 (8.98)	0 (0.00)	0 (1.00)	22095 (13.55)	0 (0.00)	0 (3.00)	3665
prrf1	0 (0.00)	9904 (13.20)	0 (0.00)	0 (0.00)	19715 (15.19)	0 (0.00)	0 (0.00)	2961
prrfz	0 (0.00)	21220 (6.16)	0 (0.00)	0 (0.00)	38987 (7.68)	0 (0.00)	0 (0.00)	602
PRRF	0 (0.00)	28173 (4.64)	0 (0.00)	0 (0.00)	53273 (5.62)	0 (0.00)	0 (0.00)	814
rtghi	0 (0.00)	559 (233.93)	0 (0.00)	0 (0.00)	1401 (213.69)	0 (0.00)	0 (0.00)	1960
etghi	0 (0.00)	4229 (30.92)	0 (0.00)	0 (0.00)	9998 (29.94)	0 (0.00)	0 (0.00)	1422
tgdedx1	0 (0.00)	14143 (9.25)	0 (0.00)	0 (0.00)	34145 (8.77)	0 (0.00)	0 (0.00)	482
tgdedx2	0 (0.00)	11539 (11.33)	0 (0.00)	0 (0.00)	28644 (10.45)	0 (0.00)	0 (0.00)	4018
tgdedx	0 (0.00)	28329 (4.62)	0 (0.00)	0 (0.00)	68513 (4.37)	0 (0.00)	0 (0.00)	968
tglike1	0 (0.00)	14802 (8.83)	0 (0.00)	0 (0.00)	35684 (8.39)	0 (0.00)	0 (0.00)	504
tglike2	0 (0.00)	12061 (10.84)	0 (0.00)	0 (0.00)	27771 (10.78)	0 (0.00)	0 (0.00)	3983
TGLIKE	0 (0.00)	19851 (6.59)	0 (0.00)	0 (0.00)	47553 (6.30)	0 (0.00)	0 (0.00)	674
tgdb4	0 (0.00)	10234 (12.78)	0 (0.00)	0 (0.00)	22126 (13.53)	0 (0.00)	0 (0.00)	3236
tgdb4tip	0 (0.00)	39185 (3.34)	0 (0.00)	0 (0.00)	93360 (3.21)	0 (0.00)	0 (0.00)	1325
tgdvxtip	0 (0.00)	25870 (5.05)	0 (0.00)	0 (0.00)	62373 (4.80)	0 (0.00)	0 (0.00)	882
tgdvxpi	0 (0.00)	21395 (6.11)	0 (0.00)	0 (0.00)	55908 (5.35)	0 (0.00)	0 (0.00)	773
TGB4	0 (0.00)	63423 (2.06)	0 (0.00)	0 (0.00)	153713 (1.95)	0 (0.00)	0 (0.00)	2171
pigap	0 (0.00)	12243 (10.68)	0 (0.00)	0 (0.00)	29181 (10.26)	0 (0.00)	0 (0.00)	4142
KIN	0 (0.00)	106795 (1.22)	0 (0.00)	0 (0.00)	242130 (1.24)	0 (0.00)	0 (0.00)	3489
piflg	0 (0.00)	3729 (35.07)	0 (0.00)	0 (0.00)	4921 (60.84)	0 (0.00)	0 (0.00)	865
ev502	0 (0.00)	31875 (4.10)	0 (0.00)	0 (0.00)	56227 (5.32)	0 (0.00)	0 (0.00)	881
elveto	0 (0.00)	21656 (6.04)	0 (0.00)	0 (0.00)	38823 (7.71)	0 (0.00)	0 (0.00)	604
tdfool	0 (0.00)	11204 (11.67)	0 (0.00)	0 (0.00)	19556 (15.31)	0 (0.00)	0 (0.00)	3076
tdvarnn02	0 (0.00)	36493 (3.58)	0 (0.00)	0 (0.00)	71584 (4.18)	0 (0.00)	0 (0.00)	1080
TD	**0** (0.00)	63004 (2.08)	0 (0.00)	**0** (0.00)	124546 (2.40)	0 (0.00)	**0** (0.00)	1875
targf	0 (0.00)	24435 (5.35)	0 (0.00)	0 (0.00)	67883 (4.41)	0 (0.00)	0 (0.00)	923
b4ekz	0 (0.00)	97865 (1.34)	0 (0.00)	0 (0.00)	226551 (1.32)	0 (0.00)	0 (0.00)	3244
epimaxk	0 (0.00)	13723 (9.53)	0 (0.00)	0 (0.00)	35937 (8.33)	0 (0.00)	0 (0.00)	496
phivtx1	0 (0.00)	28004 (4.67)	0 (0.00)	0 (0.00)	66655 (4.49)	0 (0.00)	0 (0.00)	946
opsveto	0 (0.00)	34528 (3.79)	0 (0.00)	0 (0.00)	85238 (3.51)	0 (0.00)	0 (0.00)	1197
tdedge	0 (0.00)	21033 (6.22)	0 (0.00)	0 (0.00)	47074 (6.36)	0 (0.00)	0 (0.00)	681
tgccdpf off	0 (0.00)	0 (130765.00)	0 (0.00)	0 (0.00)	0 (299376.00)	0 (0.00)	0 (0.00)	0 (43
rtghi	0 (0.00)	559 (233.93)	0 (0.00)	0 (0.00)	1401 (213.69)	0 (0.00)	0 (0.00)	1960
etghi	0 (0.00)	4229 (30.92)	0 (0.00)	0 (0.00)	9998 (29.94)	0 (0.00)	0 (0.00)	1422
tgdedx1	0 (0.00)	14143 (9.25)	0 (0.00)	0 (0.00)	34145 (8.77)	0 (0.00)	0 (0.00)	482
tgdedx2	0 (0.00)	11539 (11.33)	0 (0.00)	0 (0.00)	28644 (10.45)	0 (0.00)	0 (0.00)	4018
tgdedx	0 (0.00)	28329 (4.62)	0 (0.00)	0 (0.00)	68513 (4.37)	0 (0.00)	0 (0.00)	968
tglike1	0 (0.00)	14802 (8.83)	0 (0.00)	0 (0.00)	35684 (8.39)	0 (0.00)	0 (0.00)	504
tglike2	0 (0.00)	12061 (10.84)	0 (0.00)	0 (0.00)	27771 (10.78)	0 (0.00)	0 (0.00)	3983
TGLIKE	0 (0.00)	19851 (6.59)	0 (0.00)	0 (0.00)	47553 (6.30)	0 (0.00)	0 (0.00)	674
tgdb4	0 (0.00)	10234 (12.78)	0 (0.00)	0 (0.00)	22126 (13.53)	0 (0.00)	0 (0.00)	3236

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	p1al
tgdb4tip	0 (0.00)	39185 (3.34)	0 (0.00)	0 (0.00)	93360 (3.21)	0 (0.00)	0 (0.00)	132545
tgdvxtip	0 (0.00)	25870 (5.05)	0 (0.00)	0 (0.00)	62373 (4.80)	0 (0.00)	0 (0.00)	88243
tgdvxpi	0 (0.00)	21395 (6.11)	0 (0.00)	0 (0.00)	55908 (5.35)	0 (0.00)	0 (0.00)	77303
TGB4	0 (0.00)	63423 (2.06)	0 (0.00)	0 (0.00)	153713 (1.95)	0 (0.00)	0 (0.00)	217136
pigap	0 (0.00)	12243 (10.68)	0 (0.00)	0 (0.00)	29181 (10.26)	0 (0.00)	0 (0.00)	41424
TGKIN	0 (0.00)	83113 (1.57)	0 (0.00)	0 (0.00)	197781 (1.51)	0 (0.00)	0 (0.00)	280894
tgpv	**0** (0.00)	43236 (3.02)	0 (0.00)	**0** (0.00)	118100 (2.53)	0 (0.00)	**0** (0.00)	161337
Total Rej.	0.00			0.00			0	

Table 18: 2-Beam Normalization. Branch no. 3

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
pv(not tg)	88732 (1.47)	42033 (3.11)	0 (0.00)	206420 (1.45)	92956 (3.22)	1 (1.00)
tgqualt	86262 (1.03)	3784 (34.56)	0 (0.00)	200721 (1.03)	8537 (35.07)	0 (0.00)
timcon	85604 (1.01)	1296 (100.90)	0 (0.00)	198913 (1.01)	3113 (96.17)	0 (0.00)
epitg	80925 (1.06)	6783 (19.28)	0 (0.00)	184353 (1.08)	21067 (14.21)	0 (0.00)
tger	80493 (1.01)	1297 (100.82)	0 (0.00)	183347 (1.01)	2997 (99.89)	0 (0.00)
ticcon	80491 (1.00)	8 (16345.60)	0 (0.00)	183344 (1.00)	31 (9657.29)	0 (0.00)
dtgttp	80487 (1.00)	66 (1981.29)	0 (0.00)	183326 (1.00)	158 (1894.78)	0 (0.00)
rtdif	78130 (1.03)	3643 (35.89)	0 (0.00)	178227 (1.03)	8020 (37.33)	0 (0.00)
drp	77508 (1.01)	896 (145.94)	0 (0.00)	176800 (1.01)	2034 (147.19)	0 (0.00)
eiccon	75203 (1.03)	4873 (26.83)	0 (0.00)	171905 (1.03)	10101 (29.64)	0 (0.00)
kic	65598 (1.15)	30450 (4.29)	0 (0.00)	147025 (1.17)	73272 (4.09)	0 (0.00)
tggeo	56731 (1.16)	51274 (2.55)	1 (1.00)	126701 (1.16)	120275 (2.49)	0 (0.00)
tgzfool 787	43735 (1.30)	29296 (4.46)	0 (0.00)	97943 (1.29)	66621 (4.49)	0 (0.00)
upvtrs	38730 (1.13)	15456 (8.46)	0 (0.00)	87451 (1.12)	33298 (8.99)	0 (0.00)
rvtrs	38518 (1.01)	2022 (64.67)	0 (0.00)	87010 (1.01)	3888 (77.00)	0 (0.00)
tgtcon	36873 (1.04)	7213 (18.13)	0 (0.00)	82483 (1.05)	18592 (16.10)	0 (0.00)
b4etcon	35956 (1.03)	3996 (32.72)	0 (0.00)	80132 (1.03)	9912 (30.20)	0 (0.00)
b4tim	13545 (2.65)	75401 (1.73)	0 (0.00)	26757 (2.99)	174333 (1.72)	0 (0.00)
tgktim	13545 (1.00)	0 (130765.00)	0 (0.00)	26757 (1.00)	0 (299376.00)	0 (0.00)
tgenr	13258 (1.02)	9302 (14.06)	0 (0.00)	26320 (1.02)	21434 (13.97)	0 (0.00)
chi567	3758 (3.53)	97829 (1.34)	1 (1.00)	6418 (4.10)	226848 (1.32)	0 (0.00)
npitg	3758 (1.00)	3784 (34.56)	0 (0.00)	6418 (1.00)	8537 (35.07)	0 (0.00)
verrng	2646 (1.42)	54822 (2.39)	0 (0.00)	3982 (1.61)	134477 (2.23)	5 (5.00)
chi5max	2646 (1.00)	889 (147.09)	0 (0.00)	3982 (1.00)	2736 (109.42)	0 (0.00)
angli	2646 (1.00)	3580 (36.53)	0 (0.00)	3974 (1.00)	8031 (37.28)	0 (0.00)
ALLKfit	1689 (1.57)	58758 (2.23)	0 (0.00)	2646 (1.50)	122038 (2.45)	1 (1.00)
tpics	1444 (1.17)	21746 (6.01)	0 (0.00)	2247 (1.18)	49567 (6.04)	0 (0.00)
epionk	1379 (1.05)	3445 (37.96)	0 (0.00)	2073 (1.08)	10205 (29.34)	0 (0.00)
ccdpul	434 (3.18)	88474 (1.48)	1 (1.00)	638 (3.25)	207462 (1.44)	3 (3.00)
timkf	318 (1.36)	100513 (1.30)	0 (0.00)	441 (1.45)	229649 (1.30)	0 (0.00)
DELC(0.)	213 (1.49)	91970 (1.42)	0 (0.00)	309 (1.43)	190582 (1.57)	0 (0.00)
b4dedx	211 (1.01)	55089 (2.37)	0 (0.00)	303 (1.02)	124968 (2.40)	0 (0.00)
cktrs	205 (1.03)	21957 (5.96)	0 (0.00)	301 (1.01)	34945 (8.57)	0 (0.00)
cktail	204 (1.00)	16531 (7.91)	0 (0.00)	299 (1.01)	25913 (11.55)	0 (0.00)
cpitrs · cpitail · bwtrs	30 (6.80)	21149 (6.18)	0 (0.00)	90 (3.32)	29486 (10.15)	0 (0.00)
BOX 949	30 (1.00)	0 (130765.00)	0 (0.00)	90 (1.00)	0 (299376.00)	0 (0.00)
*icodel*14	30 (1.00)	2212 (59.12)	0 (0.00)	88 (1.02)	2952 (101.42)	0 (0.00)
cos3d	27 (1.11)	8414 (15.54)	0 (0.00)	81 (1.09)	22364 (13.39)	0 (0.00)
layv4 949	27 (1.00)	0 (130765.00)	0 (0.00)	81 (1.00)	2 (149688.00)	0 (0.00)
zfrf	23 (1.17)	14379 (9.09)	0 (0.00)	73 (1.11)	35125 (8.52)	0 (0.00)
zutout	23 (1.00)	410 (318.94)	0 (0.00)	73 (1.00)	666 (449.51)	0 (0.00)
FIDUCIAL	23 (1.00)	16735 (7.81)	0 (0.00)	73 (1.00)	41211 (7.26)	0 (0.00)

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	
utcqual	20 (1.15)	17657 (7.41)	0 (0.00)	61 (1.20)	34405 (8.70)	0 (0.00)	81 (1.19)	52
rsdedxcl	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0 (
rsdedxmax	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0 (
rslike	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0 (
tgktim	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0 (
rngmom	19 (1.05)	14558 (8.98)	0 (0.00)	60 (1.02)	22095 (13.55)	0 (0.00)	79 (1.03)	366
prrf1	18 (1.06)	9904 (13.20)	0 (0.00)	55 (1.09)	19715 (15.19)	0 (0.00)	73 (1.08)	296
prrfz	15 (1.20)	21220 (6.16)	0 (0.00)	49 (1.12)	38987 (7.68)	0 (0.00)	64 (1.14)	60
PRRF	15 (1.00)	28173 (4.64)	0 (0.00)	49 (1.00)	53273 (5.62)	0 (0.00)	64 (1.00)	81
rtghi	15 (1.00)	559 (233.93)	0 (0.00)	49 (1.00)	1401 (213.69)	0 (0.00)	64 (1.00)	196
etghi	15 (1.00)	4229 (30.92)	0 (0.00)	49 (1.00)	9998 (29.94)	0 (0.00)	64 (1.00)	142
tgdedx1	13 (1.15)	14143 (9.25)	0 (0.00)	46 (1.07)	34145 (8.77)	0 (0.00)	59 (1.08)	48
tgdedx2	13 (1.00)	11539 (11.33)	0 (0.00)	46 (1.00)	28644 (10.45)	0 (0.00)	59 (1.00)	401
tgdedx	13 (1.00)	28329 (4.62)	0 (0.00)	46 (1.00)	68513 (4.37)	0 (0.00)	59 (1.00)	96
tglike1	13 (1.00)	14802 (8.83)	0 (0.00)	46 (1.00)	35684 (8.39)	0 (0.00)	59 (1.00)	50
tglike2	13 (1.00)	12061 (10.84)	0 (0.00)	46 (1.00)	27771 (10.78)	0 (0.00)	59 (1.00)	398
TGLIKE	13 (1.00)	19851 (6.59)	0 (0.00)	46 (1.00)	47553 (6.30)	0 (0.00)	59 (1.00)	67
tgdb4	13 (1.00)	10234 (12.78)	0 (0.00)	43 (1.07)	22126 (13.53)	0 (0.00)	56 (1.05)	323
tgdb4tip	12 (1.08)	39185 (3.34)	0 (0.00)	35 (1.23)	93360 (3.21)	0 (0.00)	47 (1.19)	132
tgdvxtip	12 (1.00)	25870 (5.05)	0 (0.00)	33 (1.06)	62373 (4.80)	0 (0.00)	45 (1.04)	88
tgdvxpi	12 (1.00)	21395 (6.11)	0 (0.00)	33 (1.00)	55908 (5.35)	0 (0.00)	45 (1.00)	77
TGB4	12 (1.00)	63423 (2.06)	0 (0.00)	33 (1.00)	153713 (1.95)	0 (0.00)	45 (1.00)	217
pigap	12 (1.00)	12243 (10.68)	0 (0.00)	33 (1.00)	29181 (10.26)	0 (0.00)	45 (1.00)	414
KIN	12 (1.00)	106795 (1.22)	0 (0.00)	33 (1.00)	242130 (1.24)	0 (0.00)	45 (1.00)	348
piflg	12 (1.00)	3729 (35.07)	0 (0.00)	33 (1.00)	4921 (60.84)	0 (0.00)	45 (1.00)	86
ev502	12 (1.00)	31875 (4.10)	0 (0.00)	30 (1.10)	56227 (5.32)	0 (0.00)	42 (1.07)	88
elveto	11 (1.09)	21656 (6.04)	0 (0.00)	29 (1.03)	38823 (7.71)	0 (0.00)	40 (1.05)	60
tdfool	11 (1.00)	11204 (11.67)	0 (0.00)	29 (1.00)	19556 (15.31)	0 (0.00)	40 (1.00)	307
tdvarnn02	9 (1.22)	36493 (3.58)	0 (0.00)	25 (1.16)	71584 (4.18)	0 (0.00)	34 (1.18)	108
TD	**9** (1.00)	63004 (2.08)	0 (0.00)	**25** (1.00)	124546 (2.40)	0 (0.00)	**34** (1.00)	187
b4trs	0 (9.00)	42550 (3.07)	9 (9.00)	0 (25.00)	119516 (2.50)	24 (24.00)	0 (34.00)	162
b4ccd	**0** (0.00)	954 (137.07)	0 (0.00)	**0** (0.00)	2350 (127.39)	0 (0.00)	**0** (0.00)	330
Total Rej.		9.00			25.00			

Table 19: 2-Beam Normalization. Branch no. 4

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut
BOX 949	130765 (0.00)	0 (130765.00)	0 (0.00)	299376 (0.00)	0 (299376.00)	0 (0.00)
rsdedxmax	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rsdedxcl	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
rslike	130765 (1.00)	0 (130765.00)	0 (0.00)	299376 (1.00)	0 (299376.00)	0 (0.00)
pv(not tg)	88732 (1.47)	42033 (3.11)	0 (0.00)	206420 (1.45)	92956 (3.22)	0 (0.00)
tgqualt	86262 (1.03)	3784 (34.56)	0 (0.00)	200721 (1.03)	8537 (35.07)	0 (0.00)
timcon	85604 (1.01)	1296 (100.90)	0 (0.00)	198913 (1.01)	3113 (96.17)	0 (0.00)
epitg	80925 (1.06)	6783 (19.28)	0 (0.00)	184353 (1.08)	21067 (14.21)	0 (0.00)
tger	80493 (1.01)	1297 (100.82)	0 (0.00)	183347 (1.01)	2997 (99.89)	0 (0.00)
ticcon	80491 (1.00)	8 (16345.60)	0 (0.00)	183344 (1.00)	31 (9657.29)	0 (0.00)
dtgttp	80487 (1.00)	66 (1981.29)	0 (0.00)	183326 (1.00)	158 (1894.78)	0 (0.00)
rtdif	78130 (1.03)	3643 (35.89)	0 (0.00)	178227 (1.03)	8020 (37.33)	0 (0.00)
drp	77508 (1.01)	896 (145.94)	0 (0.00)	176800 (1.01)	2034 (147.19)	0 (0.00)
eiccon	75203 (1.03)	4873 (26.83)	0 (0.00)	171905 (1.03)	10101 (29.64)	0 (0.00)
kic	65598 (1.15)	30450 (4.29)	0 (0.00)	147025 (1.17)	73272 (4.09)	0 (0.00)
tggeo	56731 (1.16)	51274 (2.55)	0 (0.00)	126701 (1.16)	120275 (2.49)	0 (0.00)
tgzfool 787	43735 (1.30)	29296 (4.46)	0 (0.00)	97943 (1.29)	66621 (4.49)	0 (0.00)
upvtrs	38730 (1.13)	15456 (8.46)	0 (0.00)	87451 (1.12)	33298 (8.99)	0 (0.00)
rvtrs	38518 (1.01)	2022 (64.67)	0 (0.00)	87010 (1.01)	3888 (77.00)	0 (0.00)
tgtcon	36873 (1.04)	7213 (18.13)	0 (0.00)	82483 (1.05)	18592 (16.10)	0 (0.00)
b4etcon	35956 (1.03)	3996 (32.72)	0 (0.00)	80132 (1.03)	9912 (30.20)	0 (0.00)
b4tim	13545 (2.65)	75401 (1.73)	0 (0.00)	26757 (2.99)	174333 (1.72)	0 (0.00)
tgktim	13545 (1.00)	0 (130765.00)	0 (0.00)	26757 (1.00)	0 (299376.00)	0 (0.00)
tgenr	13258 (1.02)	9302 (14.06)	0 (0.00)	26320 (1.02)	21434 (13.97)	0 (0.00)
chi567	3758 (3.53)	97829 (1.34)	0 (0.00)	6418 (4.10)	226848 (1.32)	0 (0.00)
npitg	3758 (1.00)	3784 (34.56)	0 (0.00)	6418 (1.00)	8537 (35.07)	0 (0.00)
verrng	2646 (1.42)	54822 (2.39)	0 (0.00)	3982 (1.61)	134477 (2.23)	0 (0.00)
chi5max	2646 (1.00)	889 (147.09)	0 (0.00)	3982 (1.00)	2736 (109.42)	0 (0.00)
angli	2646 (1.00)	3580 (36.53)	0 (0.00)	3974 (1.00)	8031 (37.28)	0 (0.00)
ALLKfit	1689 (1.57)	58758 (2.23)	0 (0.00)	2646 (1.50)	122038 (2.45)	0 (0.00)
tpics	1444 (1.17)	21746 (6.01)	0 (0.00)	2247 (1.18)	49567 (6.04)	0 (0.00)
epionk	1379 (1.05)	3445 (37.96)	0 (0.00)	2073 (1.08)	10205 (29.34)	0 (0.00)
ccdpul	434 (3.18)	88474 (1.48)	1 (1.00)	638 (3.25)	207462 (1.44)	0 (0.00)
timkf	318 (1.36)	100513 (1.30)	0 (0.00)	441 (1.45)	229649 (1.30)	0 (0.00)
DELC(0.)	213 (1.49)	91970 (1.42)	0 (0.00)	309 (1.43)	190582 (1.57)	0 (0.00)
b4dedx	211 (1.01)	55089 (2.37)	0 (0.00)	303 (1.02)	124968 (2.40)	0 (0.00)
cktrs	205 (1.03)	21957 (5.96)	0 (0.00)	301 (1.01)	34945 (8.57)	0 (0.00)
cktail	204 (1.00)	16531 (7.91)	0 (0.00)	299 (1.01)	25913 (11.55)	0 (0.00)
cpitrs · cpitail · bwtrs	30 (6.80)	21149 (6.18)	0 (0.00)	90 (3.32)	29486 (10.15)	0 (0.00)
BOX 949	30 (1.00)	0 (130765.00)	0 (0.00)	90 (1.00)	0 (299376.00)	0 (0.00)
*icodel*14	30 (1.00)	2212 (59.12)	0 (0.00)	88 (1.02)	2952 (101.42)	0 (0.00)
cos3d	27 (1.11)	8414 (15.54)	0 (0.00)	81 (1.09)	22364 (13.39)	0 (0.00)
layv4 949	27 (1.00)	0 (130765.00)	0 (0.00)	81 (1.00)	2 (149688.00)	0 (0.00)
zfrf	23 (1.17)	14379 (9.09)	0 (0.00)	73 (1.11)	35125 (8.52)	0 (0.00)
zutout	23 (1.00)	410 (318.94)	0 (0.00)	73 (1.00)	666 (449.51)	0 (0.00)
FIDUCIAL	23 (1.00)	16735 (7.81)	0 (0.00)	73 (1.00)	41211 (7.26)	0 (0.00)

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	
utcqual	20 (1.15)	17657 (7.41)	0 (0.00)	61 (1.20)	34405 (8.70)	0 (0.00)	81 (1.19)	5
rsdedxcl	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0
rsdedxmax	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0
rslike	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0
tgktim	20 (1.00)	0 (130765.00)	0 (0.00)	61 (1.00)	0 (299376.00)	0 (0.00)	81 (1.00)	0
rngmom	19 (1.05)	14558 (8.98)	0 (0.00)	60 (1.02)	22095 (13.55)	0 (0.00)	79 (1.03)	36
prrf1	18 (1.06)	9904 (13.20)	0 (0.00)	55 (1.09)	19715 (15.19)	0 (0.00)	73 (1.08)	29
prrfz	15 (1.20)	21220 (6.16)	0 (0.00)	49 (1.12)	38987 (7.68)	0 (0.00)	64 (1.14)	6
PRRF	15 (1.00)	28173 (4.64)	0 (0.00)	49 (1.00)	53273 (5.62)	0 (0.00)	64 (1.00)	8
rtghi	15 (1.00)	559 (233.93)	0 (0.00)	49 (1.00)	1401 (213.69)	0 (0.00)	64 (1.00)	19
etghi	15 (1.00)	4229 (30.92)	0 (0.00)	49 (1.00)	9998 (29.94)	0 (0.00)	64 (1.00)	14
tgdedx1	13 (1.15)	14143 (9.25)	0 (0.00)	46 (1.07)	34145 (8.77)	0 (0.00)	59 (1.08)	4
tgdedx2	13 (1.00)	11539 (11.33)	0 (0.00)	46 (1.00)	28644 (10.45)	0 (0.00)	59 (1.00)	40
tgdedx	13 (1.00)	28329 (4.62)	0 (0.00)	46 (1.00)	68513 (4.37)	0 (0.00)	59 (1.00)	9
tglike1	13 (1.00)	14802 (8.83)	0 (0.00)	46 (1.00)	35684 (8.39)	0 (0.00)	59 (1.00)	5
tglike2	13 (1.00)	12061 (10.84)	0 (0.00)	46 (1.00)	27771 (10.78)	0 (0.00)	59 (1.00)	39
TGLIKE	13 (1.00)	19851 (6.59)	0 (0.00)	46 (1.00)	47553 (6.30)	0 (0.00)	59 (1.00)	6
tgdb4	13 (1.00)	10234 (12.78)	0 (0.00)	43 (1.07)	22126 (13.53)	0 (0.00)	56 (1.05)	32
tgdb4tip	12 (1.08)	39185 (3.34)	0 (0.00)	35 (1.23)	93360 (3.21)	0 (0.00)	47 (1.19)	13
tgdvxtip	12 (1.00)	25870 (5.05)	0 (0.00)	33 (1.06)	62373 (4.80)	0 (0.00)	45 (1.04)	8
tgdvxpi	12 (1.00)	21395 (6.11)	0 (0.00)	33 (1.00)	55908 (5.35)	0 (0.00)	45 (1.00)	7
TGB4	12 (1.00)	63423 (2.06)	0 (0.00)	33 (1.00)	153713 (1.95)	0 (0.00)	45 (1.00)	21
pigap	12 (1.00)	12243 (10.68)	0 (0.00)	33 (1.00)	29181 (10.26)	0 (0.00)	45 (1.00)	41
KIN	12 (1.00)	106795 (1.22)	0 (0.00)	33 (1.00)	242130 (1.24)	0 (0.00)	45 (1.00)	34
piflg	12 (1.00)	3729 (35.07)	0 (0.00)	33 (1.00)	4921 (60.84)	0 (0.00)	45 (1.00)	8
ev502	12 (1.00)	31875 (4.10)	0 (0.00)	30 (1.10)	56227 (5.32)	0 (0.00)	42 (1.07)	8
elveto	11 (1.09)	21656 (6.04)	0 (0.00)	29 (1.03)	38823 (7.71)	0 (0.00)	40 (1.05)	6
tdfool	11 (1.00)	11204 (11.67)	0 (0.00)	29 (1.00)	19556 (15.31)	0 (0.00)	40 (1.00)	30
tdvarnn02	9 (1.22)	36493 (3.58)	0 (0.00)	25 (1.16)	71584 (4.18)	0 (0.00)	34 (1.18)	10
TD	**9** (1.00)	63004 (2.08)	0 (0.00)	**25** (1.00)	124546 (2.40)	0 (0.00)	**34** (1.00)	18
targf	9 (1.00)	24435 (5.35)	0 (0.00)	25 (1.00)	67883 (4.41)	0 (0.00)	34 (1.00)	9
b4ekz	7 (1.29)	97865 (1.34)	0 (0.00)	15 (1.67)	226551 (1.32)	0 (0.00)	22 (1.55)	32
epimaxk	7 (1.00)	13723 (9.53)	0 (0.00)	15 (1.00)	35937 (8.33)	0 (0.00)	22 (1.00)	4
phivtx1	4 (1.75)	28004 (4.67)	0 (0.00)	5 (3.00)	66655 (4.49)	1 (1.00)	9 (2.44)	9
opsveto	0 (4.00)	34528 (3.79)	1 (1.00)	0 (5.00)	85238 (3.51)	0 (0.00)	0 (9.00)	11
tdedge	0 (0.00)	21033 (6.22)	0 (0.00)	0 (0.00)	47074 (6.36)	0 (0.00)	0 (0.00)	6
tgccdpf off	0 (0.00)	0 (130765.00)	0 (0.00)	0 (0.00)	0 (299376.00)	0 (0.00)	0 (0.00)	0
rtghi	0 (0.00)	559 (233.93)	0 (0.00)	0 (0.00)	1401 (213.69)	0 (0.00)	0 (0.00)	19
etghi	0 (0.00)	4229 (30.92)	0 (0.00)	0 (0.00)	9998 (29.94)	0 (0.00)	0 (0.00)	14
tgdedx1	0 (0.00)	14143 (9.25)	0 (0.00)	0 (0.00)	34145 (8.77)	0 (0.00)	0 (0.00)	4
tgdedx2	0 (0.00)	11539 (11.33)	0 (0.00)	0 (0.00)	28644 (10.45)	0 (0.00)	0 (0.00)	40
tgdedx	0 (0.00)	28329 (4.62)	0 (0.00)	0 (0.00)	68513 (4.37)	0 (0.00)	0 (0.00)	9
tglike1	0 (0.00)	14802 (8.83)	0 (0.00)	0 (0.00)	35684 (8.39)	0 (0.00)	0 (0.00)	5
tglike2	0 (0.00)	12061 (10.84)	0 (0.00)	0 (0.00)	27771 (10.78)	0 (0.00)	0 (0.00)	39
TGLIKE	0 (0.00)	19851 (6.59)	0 (0.00)	0 (0.00)	47553 (6.30)	0 (0.00)	0 (0.00)	6
tgdb4	0 (0.00)	10234 (12.78)	0 (0.00)	0 (0.00)	22126 (13.53)	0 (0.00)	0 (0.00)	32

Cuts	p1d1 seq	p1d1 single	p1d1 allbut	p1d2 seq	p1d2 single	p1d2 allbut	p1all seq	p1al
tgdb4tip	0 (0.00)	39185 (3.34)	0 (0.00)	0 (0.00)	93360 (3.21)	0 (0.00)	0 (0.00)	132545
tgdvxtip	0 (0.00)	25870 (5.05)	0 (0.00)	0 (0.00)	62373 (4.80)	0 (0.00)	0 (0.00)	88243
tgdvxpi	0 (0.00)	21395 (6.11)	0 (0.00)	0 (0.00)	55908 (5.35)	0 (0.00)	0 (0.00)	77303
TGB4	0 (0.00)	63423 (2.06)	0 (0.00)	0 (0.00)	153713 (1.95)	0 (0.00)	0 (0.00)	217136
pigap	0 (0.00)	12243 (10.68)	0 (0.00)	0 (0.00)	29181 (10.26)	0 (0.00)	0 (0.00)	41424
TGKIN	0 (0.00)	83113 (1.57)	0 (0.00)	0 (0.00)	197781 (1.51)	0 (0.00)	0 (0.00)	280894
tgpv	**0** (0.00)	43236 (3.02)	0 (0.00)	**0** (0.00)	118100 (2.53)	0 (0.00)	**0** (0.00)	161337
Total Rej.	9.00			25.00			3	