Ke4 background study (09 Jun, 2006)

- A bug is cleared in my pass2 code.
- First branch: $\overline{TGPV \cdot OPSVETO}$

  TGPV: 1.3 ns and 5 MeV

  OPSVETO: 3 ns and 2 MeV
- Second branch: $\overline{CCDPUL}$

  CCDPUL: 2 MeV

	$\overline{TGPV \cdot OPSVETO}$	$\overline{CCDPUL}$
Before final cut	95	122
final cuts	15	42

Progress in umc study

- Several pass2 functions which are not compatible with umc are updated.
- umc events might have the same event number.
- umc events have different position from data.
- Comis and skim jobs run well on umc ntuple now. (Events display on skimed ntuple)

Progress in umc study

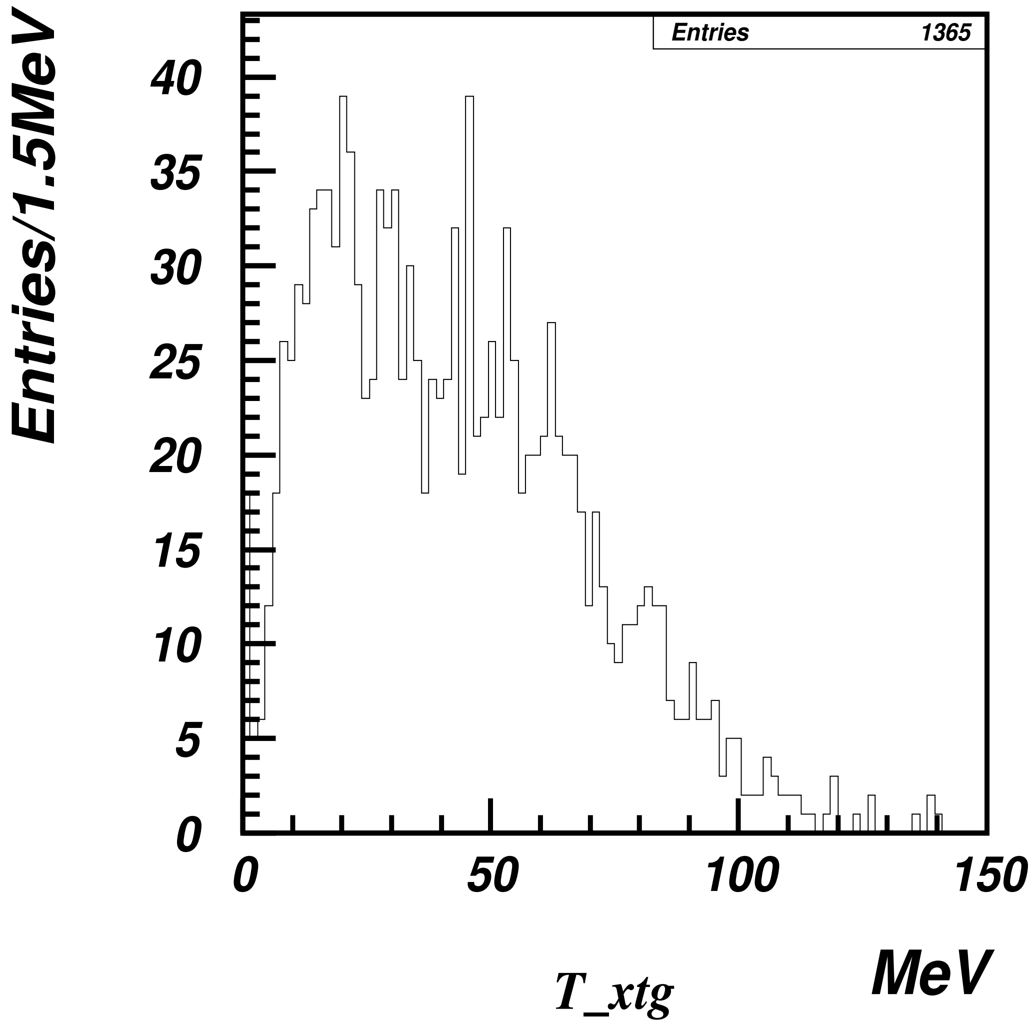
- Using umc data to study the rejections of TGPV and CCDPUL
- TGPV (OPSVETO): T_{xtg}, in-time energy in fibers classified as neither K fiber nor π fiber.
- CCDPUL: E_{hide}, total energy in K fibers at π time.

History of pass2 cuts on MC1

Cut	events (acc)
Kstops	43999156. (1.00000)
TRIGGER	1335183. (0.03035)
BOX	492633. (0.36896)
PCUTS	492633. (1.00000)
TDCUTS	492633. (1.00000)
KCUTS	360652. (0.73209)
PRESEL	161137. (0.44679)
RCUT	161137. (1.00000)
PVICVC	55282. (0.34307)
EPITG	53085. (0.96026)
EPIMAX	51512. (0.97037)
TGER	51414. (0.99810)
TARGF	51079. (0.99348)
DTGTTP	51047. (0.99937)
RTDIF	50078. (0.98102)
DRP	42396. (0.84660)
EIC	37094. (0.87494)
TIC	0. (0.00000)

TGDEDX	23990. (0.64674)
TGENR	19079. (0.79529)
PIGAP	18516. (0.97049)
TGLIKE	17553. (0.94799)
TGB4	0. (0.00000)
PHIVTX1	8088. (0.46078)
PHIVTX2	7657. (0.94671)
CHI567	2193. (0.28640)
NPITG	2193. (1.00000)
VERRNG	1383. (0.63064)
CHI5MAX	1377. (0.99566)
ANGLI	1366. (0.99201)
KIC	1366. (1.00000)
EPIONK	1365. (0.99927)
TGKTIM	0. (0.00000)
TGEDGE	0. (0.00000)
TIMKF	0. (0.00000)
B4EKZ	0. (0.00000)
ALLKFIT	0. (0.00000)

T_{xtg} distribution



Comparable with Fig. 29 (tn386)

Where is E_{hide}

- No timing simulation in target fiber. (CCDPUL and EPIONK)
- E_{hide} comes from umc truth in Bipul's code.
- If I am lucky, umc truth was already written into umc data. However pass2 code will updated to extract this information.