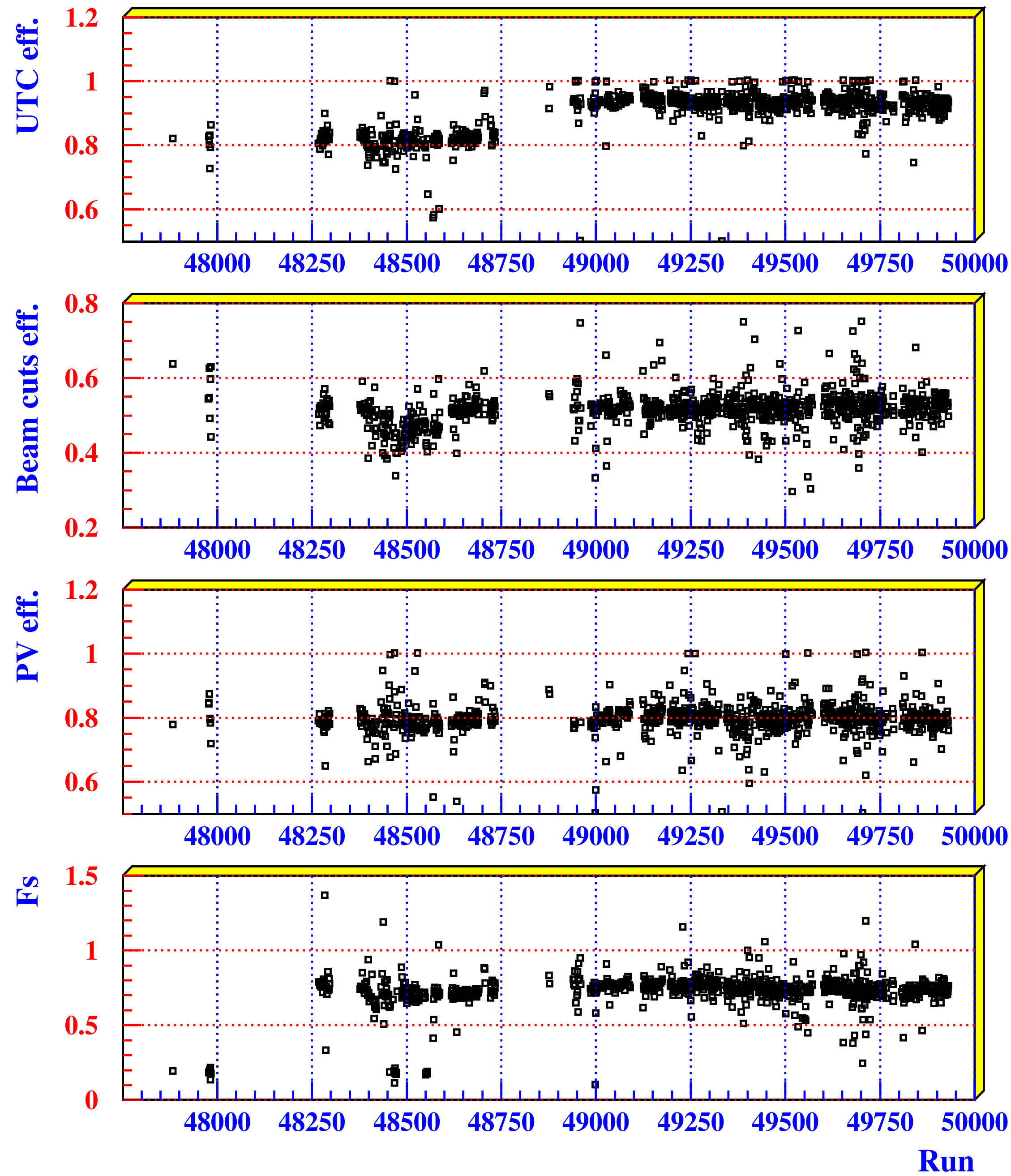
- $\pi^+\nu\bar{\nu}$ **acceptance study**
  - **The motivation to spot any potential problem**
  - **Use 1998 cut positions**
  - **Only $A_{\bar{\mu}}^{acc}$, $A_{K\mu2}$, $A_{K\pi2}$ and $A_{\pi_{scat}}$ avaliable at present**
  - **Assume other acceptances keep unchanged**

Year	1998	2002.1	2002.2
A_{trig}	0.1798	0.1798	0.1798
$A_{\bar{\mu}}^{acc}$	0.9909	0.9928	0.9928
A_{UMC}	0.3493	0.3493	0.3493
A_{nidif}	0.5277	0.5277	0.5277
$A_{K\mu2}$	0.4191	0.2318	0.2837
$A_{K\pi2}$	0.8739	0.8193	0.7786
$A_{\pi_{scat}}$	0.6675	0.5439	0.4679
A_{TD}	0.3941	0.3941	0.3941
$\epsilon T \cdot 2$	0.882	0.882	0.882
f_s	0.7019	0.75	0.80
$A\epsilon$	0.00279	0.00118	0.00118
$A\epsilon \cdot f_s$	0.00196	0.00089	0.00095
K_{Blive} (10^{12})	2.70	0.6	1.2
Sensitivity (10^{-10})	1.89	0.19	0.88

Fine tuning and pass2 calibrations have not been done yet!

• Kaon stopping faction



UTC efficiency can be recovered by using cathode strip TDC information!

• $K_{\mu 2}$ base acceptance study

Cut	1998	2002.1	2002.2
A_{RD}	0.9994	0.99983	0.99945
UTC/RANGE	1.00000	1.00000	1.00000
UTCQUAL	0.97146	0.83147	0.94524
TARGET	0.99788	0.97995	0.99645
A_{recon}	0.9694	0.81480	0.94188
ICBIT	1.00000	1.00000	1.00000
TIC	0.99192	0.97575	0.99107
TIMCON	0.99243	0.96292	0.97461
DCBIT	0.88743	0.89815	0.87684
DELCO2	0.95897	0.94310	0.95332
TGCCD	0.95662	1.00000	1.00000
DELCO	0.91329	0.82034	0.83569
CKTRS	0.99401	0.99098	0.98895
CKTAIL	0.96670	0.94629	0.94654
B4DEDX	0.98599	0.97249	0.97286
CPITRS	0.99840	0.99739	0.99709
CPITAIL	0.99970	0.99876	0.99852
PSCUT	0.99484	0.94809	0.94258
TARGF	0.96614	0.95208	0.95269
DTGTTP	0.99991	0.99979	0.99977
RTDIF	0.98960	0.98800	0.98798
TGQUALT	1.00000	1.00000	1.00000
PIGAP	0.99045	0.98634	0.98561
TGB4	0.96967	0.96004	0.96069
KIC	0.99372	0.99335	0.99162
TGGEO	0.99698	0.99435	0.99434
EIC	0.96940	0.94724	0.93989
EICKIN	1.00000	1.00000	1.00000
B4EKZ	0.97913	1.00000	1.00000
B4EKZ_IC	1.00000	1.00000	1.00000
TGZFOOL	1.00000	0.99885	0.99967
TGCUT	0.99993	0.99456	0.99714
BWTRS	0.97972	0.96737	0.97090
BHTRS	0.99752	1.00000	1.00000
B4TRS	0.99684	0.96664	0.96752
B4TD	0.99083	1.00000	1.00000
PBNRS	0.99473	1.00000	1.00000
A_{rest}	0.5708	0.43524	0.44586
HEX	0.93677	0.91772	0.94007
ONLINE PV	0.97308	1.00000	1.00000
STLAY	0.98674	1.00000	1.00000
RSHEX	0.97499	0.96214	0.96434
INTIME	0.99783	0.96791	0.97829
PVCUT	0.99074	0.97847	0.97908
TGPVCUT	0.99550	0.99420	0.99345
TGPVTR	1.00000	1.00000	1.00000
PASS3 PV	0.88375	0.83587	0.83246
A_{PV}	0.7627	0.69492	0.71811
A_{L14}	0.9937	0.94083	0.94119
$A_{K_{\mu 2}}$	0.4191	0.2318	0.2837

- **π-scatter base acceptance study**

Cut	1998	2002.1	2002.2
SETUP$_{\pi_{scat}}$ final BOX	4526	342	1028
PR_RF_AB	0.99359	0.91228	0.96206
XYHIT	0.98510	0.98718	0.97776
TWO-TRACK	0.98510	0.98701	0.99173
RNGMOM	0.98717	0.98684	0.99062
CHIMAX	0.97864	0.95667	0.97368
CL_RSDEDX	0.87974	0.88153	0.83459
RS_LIKE	0.99218	0.99605	0.98057
PR_RF	0.91875	0.87302	0.89564
PR_RFZ1	0.94765	0.93182	0.90118
PR_RFZ2	0.99844	0.99024	0.89198
NN CUT	0.94436	0.91626	0.88257
A$_{final}$	0.6675$\pm$0.0070	0.5439$\pm$0.0269	0.4679$\pm$0.0156

The pass2 calibrations have not been done yet!

- **$K_{\pi 2}$ base acceptance study**

Cut	1998	2002.1	2002.2
$SETUP_{ops}$	14882	2013	1895
OPSVETO	0.97856	0.95827	0.96042
OPSVETO_LKB	1.00000	1.00000	1.00000
A_{ops}	0.9786	0.95827	0.96042
$SETUP_{tgkin}$	14149	1853	1748
TGDEDX	0.96961	0.97679	0.94336
TGER	0.99971	0.99890	0.99939
TGLIKE	0.97740	0.92920	0.93022
EPITG	0.99955	1.00000	1.00000
EPIMAXK	0.98119	0.96250	0.97065
TGEDGE	0.99757	1.00000	0.98185
TGCCDPF	0.98894	0.99595	0.99316
PHIVTX	0.97903	0.98780	0.98415
PHIVTX2	1.00000	1.00000	1.00000
DRP	0.99504	0.99588	0.99230
A_{tgkin}	0.8930	0.8550	0.81064
$A_{K_{\pi 2}}$	0.8739	0.8193	0.7786

Software error in the pass2 production production code!