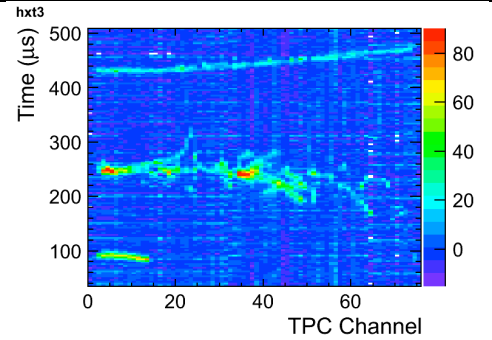


J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN#35

		Date(submitted)	2010/11/09
Group	T32	Beam line	K1.1BR
Reporter	Name	e-mail address	
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Experimenters	Participants on Run#35 data taking; T.Hasegawa, K.Kasami, M.Maki, T.Maruyama, M.Tanaka, (KEK), K.Yorita, J.Naganoma, T.Mitani,, Y.Nagasaka, H.Okamoto, A.Okamoto, (U.of Waseda), S.Narita, H.Naito(Iwate U.), F.Resnati, D.Lussi (ETHZ)		

Summary and Results

Our beam time is assigned from 24-Oct to 1-Nov. On 24-Oct, we started pre-cooling and filling LAr inside the vessel. Most of tunings on K1.1BR beamline had been done by TREK collaboration before 24-Oct. K/pi ratio is about 1:4 at maximum, Fitch and normal gas Cherenkov counters are used for the triggers of our experiment to identify kaons and positrons. In addition to 0.8GeV/c momentum, we selected the particles with 0.2GeV/c using different magnet setting on 30 and 31-Oct. Under this situation, we collect following data (a) ~80000 K+ events(0.8GeV/c), (b) ~60000 pi+ events (0.2GeV/c), (c) >~4000 positron events, (d) ~1500 proton events (0.8GeV/c) and so forth. The figure shown above is an event display which has a pion track (top), a positron tracks (middle) and a proton track (bottom) at the same time inside the LAr detector (by chance). The horizontal axis corresponds to the beam axis (1cm/1ch) and the vertical axis corresponds to the height of the detector (~100microsec = 8cm). This plot provides the quite high performance for PIDs of the LAr TPC at a glance. Currently, we analyze the data on PID performance of K+ and pi+ which have similar track range. This is quite important task for the proton decay analysis when we build a large LAr detector. Energy resolution on the positron events are also analyzed since it is important for electron neutrino appearance events.



SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.

10/24(1:00)-11/1(7:00): Beam time for T32
 except for 10/26 9:00-21:00 and 10/27 9:00-21:00 for acc. study
 10/25 17:00-21:00, 10/28: 12:00-16:00, 10/29; 12:00-16:00 T25 exp.

Downtime for beam due to acc. trouble; 10/25 3:00-6:00. 10/26; 2:00-9:00
 due to hadron magnet; 11/1 2:00-7:00

Comments/Requests