

J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN# 46a

		Date(submitted)	17 January 2013
Group	KOTO	Beam line	KL
Reporter	Name	e-mail address	
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Experimenters	Komatsubara, Lim, Nomura, Watanabe (KEK), Tajima (Yamagata), Yamanaka, Togawa, Shiomi, Sugiyama, Takashima (Osaka), Nanjo, Masuda, Kawasaki, Naito, Maeda, Seki, Hineno (Kyoto), J. Xu (Michigan), G.H.Lee, J.S. Son, S.G. Lee (Chonbuk)		
Summary and Results			
<ul style="list-style-type: none">- Commissioning of the whole KOTO detector in vacuum<ul style="list-style-type: none">+ Calibration was done for all detectors with using cosmic rays and charged particles in the beam.+ Study on count rates of detectors in situ were done - Commissioning of KOTO DAQ system<ul style="list-style-type: none">- Center of energy (COE) cut in level 2 trigger was implemented and tested.- Firmware in Level 2 trigger was being improved and tested. - Trigger rate study<ul style="list-style-type: none">- Trigger conditions for total energy in the calorimeter were studied.- Reduction by requiring no hit in veto detectors was evaluated. - Data taking for<ul style="list-style-type: none">- $KL \rightarrow 3\pi^0$ and $KL \rightarrow 2\pi^0$ decays to confirm KL yield and spectrum and to establish analysis procedure as normalization modes in physics run- π^0 production with Al targets in the beam core for absolute energy calibration of the calorimeter and background study - Halo neutron measurement with “neutron collar counter” (NCC) - Alignment of the KL collimator to position the neutral beam in the center of KOTO detector coordinate.			
SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.			
[Executed time] *11kW 1/7 21:40 - 1/8 09:30, 1/9 00:50 - 09:42, 1/9 21:36 - 1/10 09:39 *15kW 1/11 00:11 - 1/17 09:00			
[Down time] (>20 minutes) 1/8 04:57 3NBT:VAC (3NBT_UP) MPS (26 min) 1/15 6:00 LI:ACS&L3BT MPS / network SW trouble(1 hour 24 min)			
[Access inside the KL sub-door] None			
Comments/Requests			