

**J-PARC Hadron Hall : EXPERIMENTAL REPORT on RUN# 27**

|   |   |                              |                    |
|---|---|------------------------------|--------------------|
| <b>Group</b>  | <b>E15/E17</b>  | <b>Date (Submitted)</b>      | <b>Feb.6, 2010</b> |
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| <b>Summary and Results</b>  |   |                              |                    |
| i) +0.75 GeV/c unseparated beam (Ni target)<br>NIM scaler tune<br>Trigger study<br>K1.8BR D3-D5 tune by beam profile<br>K <sup>+</sup> confirmation at +0.75 GeV/c<br>K <sup>+</sup> yield study at +0.75 GeV/c   |   |                              |                    |
| ii) -0.75 GeV/c unseparated beam (Ni target)<br>K <sup>-</sup> confirmation for -0.75 GeV/c<br>K <sup>-</sup> / pbar yield study at -0.75 GeV/c   |   |                              |                    |
| <b>SCHEDULED and EXECUTED MACHINE TIME, BEAM CONDITION, DOWN TIME, Priority etc.</b>  |   |                              |                    |
| Nov. 15 01:15 ~ Nov.15 09:30 +0.75 GeV/c unseparated ( $7 \times 10^{10}$ ppp 56W, Ni)<br>Nov. 16 05:00 ~ Nov.16 07:00 +0.75 GeV/c unseparated ( $7 \times 10^{10}$ ppp 56W, Ni)<br>Nov. 19 02:30 ~ Nov.19 07:00 +/-0.75 GeV/c unseparated ( $7 \times 10^{10}$ ppp 56W, Ni)<br>Total 14.75 hrs |   |                              |                    |
| <b><u>Comments/Requests</u></b>   |   |                              |                    |

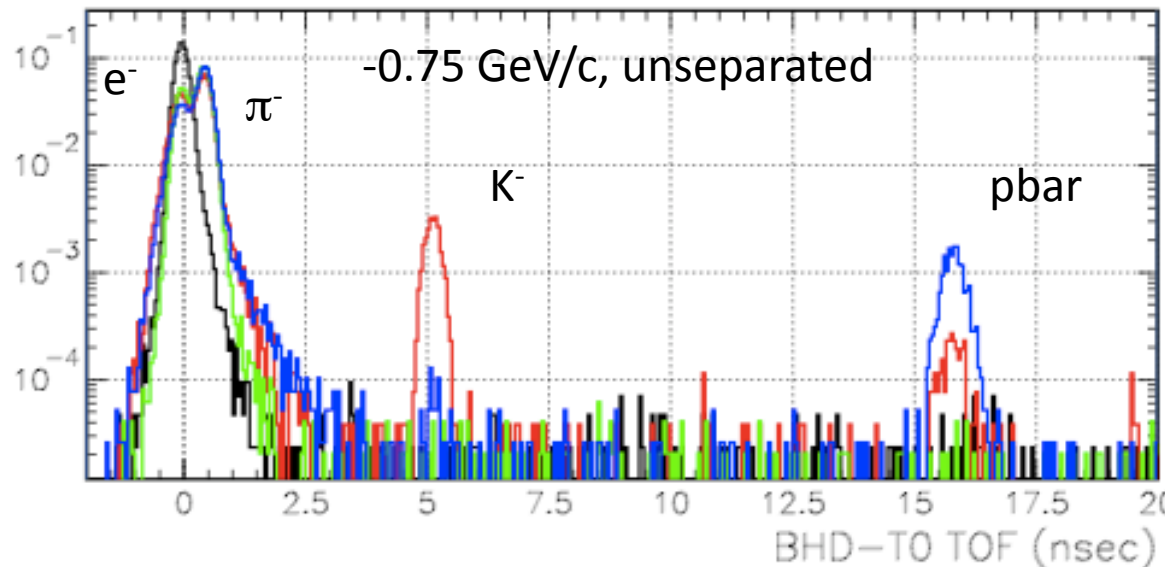
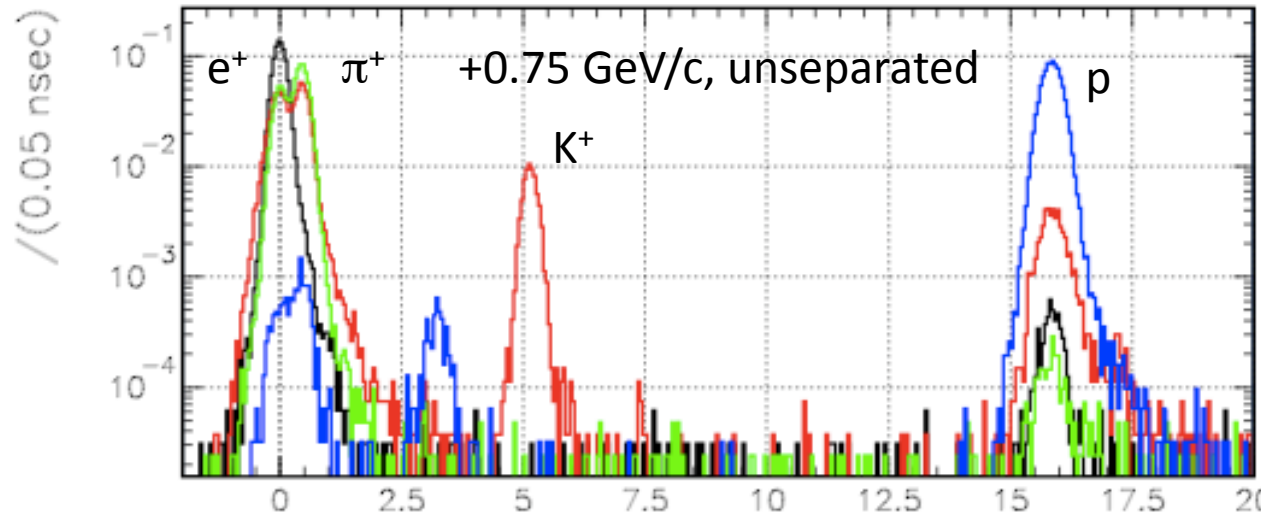
# Beam Study at run#27(11/14、11/15、11/19)

2009/11/19 08.02

✓ On Nov. 14th and 15th, Online triggers of “e”/”K”/”π”/”p” were constructed at +0.75 GeV/c under unseparated beam condition.  $K^+ / (\pi^+ + e^+)$  ratio was **320** times improved with the K trigger.

✓ On Nov. 19<sup>th</sup>, large statistic data of Cherenkov detectors were accumulated for 4 hours at +/-0.75GeV/c to achieve better  $K / (\pi + e)$  ratio.

$K^+ / K^-$  numbers were measured to be **40/7** per shot at  $7 \times 10^{10}$  ppp for Ni production target for slit full open condition. In order to proceed the beamline tuning, **further primary beam intensity is indispensable.**



BHD-TO TOF (nsec)