GEM and Scint in Jun 18th MD.

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GEM status

• Fabrizio:
  • Access during Jun 18\textsuperscript{th} (morning)
    – Removed noise due to interference with beampipe currents
    – Set threshold to rather high value
    – GEM counts zero when no beam, tank radioactivity seen in the morning.
  • Both GEMs show some high currents (~100nA – should be <10nA) at cathode and in some gaps, even with no beam
    – Can be operated but this makes us nervous.
      » Will be investigated in the next days (from offsite)
GEM+Scint.s during beam coasting

- PMT all ON – checked single counts, all non-zero
  - Found TEC1 and TEC2 used with Cerenkov… (not connected to DAQ)
  -
- GEM 2 ON
  - GEM 1 too large (1.5μA) cathode current – kept off
What I saw...

• Thanks to Alessandro, Java interface was accessible
  – Start to look at around 6:20 to beam.
  • GEM at 900(600) V (low gain – standby condition)
  • PMT thresholds not optimized
  • Found QD1+QD2 coincidence not working (zero counts)

<table>
<thead>
<tr>
<th></th>
<th>Coasting</th>
<th>Nobeam</th>
<th>Beam-loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEM2</td>
<td>17KHz</td>
<td>0</td>
<td>Several 10^4 Hz</td>
</tr>
<tr>
<td>TEC3+TEC4</td>
<td>3*10^4 counts</td>
<td>1*10^4 counts</td>
<td>7*10^4 counts</td>
</tr>
<tr>
<td>QD3+QD4</td>
<td>1-10 counts</td>
<td>0</td>
<td>100-10^3 counts</td>
</tr>
</tbody>
</table>
Some considerations

Can clearly see beam instability with PMTs and GEMs

- GEM rate not uniform
  - Pattern in pads rates to be investigate

- TEC3+TEC4 need to have discr. thresholds raised