Monte Carlo Improvements

• The original MC made for the workshop in June had two problems:
  – CAL energy bug (discreet energy)
  – Muon spectrum not correct (see Xin's workshop talk)
  – Used EngineeringModel v1r0401p9

• New Monte Carlo:
  – CAL energy bug fixed
  – Muon spectrum assumed flat below 1 GeV
  – Taken from PDG above 1 GeV
  – Used EngineeringModel v3r0402p9
CAL Energy Bug

CalEnergySum \{ CalEnergySum > 0.0 \&\& CalEnergySum < 15 \} 

Old MC

<table>
<thead>
<tr>
<th>htemp</th>
<th>Entries</th>
<th>Mean</th>
<th>RMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2317</td>
<td>9.249</td>
<td>3.684</td>
</tr>
</tbody>
</table>
CAL Energy Bug Fixed

CalEnergySum {CalEnergySum>0.0&&CalEnergySum<15}

New MC

<table>
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<th>htemp</th>
<th></th>
</tr>
</thead>
<tbody>
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<td>Mean</td>
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<tr>
<td>RMS</td>
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</tbody>
</table>
Generated Muon Energy

- New MC: Flat spectrum below 1 GeV, above taken from PDG
- Old MC: 1 GeV Cut-Off
Where is the data?

FTP site-map

After bug fixes!

Shall we keep the old version?