p_T espectra and multiplicity vs centrality in Pb-Pb collision at $\sqrt{s_{NN}} = 5\,TeV$

Analysis Update

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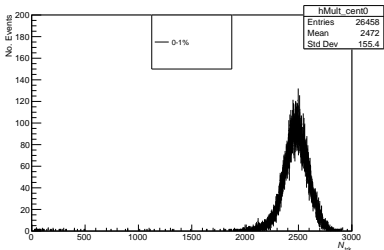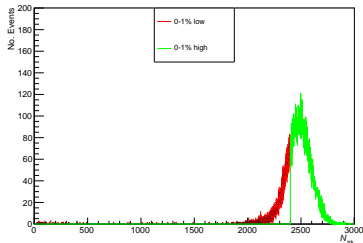
July 9th, 2021

1 pT Ratios

Last week...

- We want to study the p_T distribution of low and high multiplicity separately.

(a) Before

(b) After

- Now, we want to study the p_T ratios low/high
- As before, we define

$$R_{lh,i} := \frac{\left(\frac{1}{N_{ev}} \frac{d^2 N}{dp_T d\eta} \right)_{\text{low},i}}{\left(\frac{1}{N_{ev}} \frac{d^2 N}{dp_T d\eta} \right)_{\text{high},i}}$$

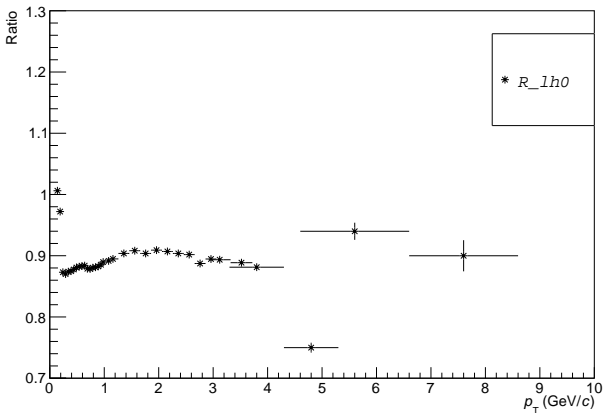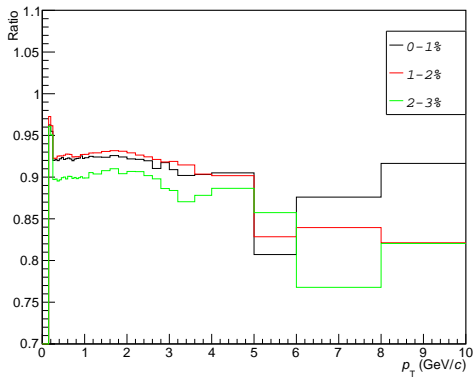where $i =$ for $0 - 1\%$, $i = 1$ for $1 - 2\%$ etc.

Last week

图 2: R_{lh0}

Progress

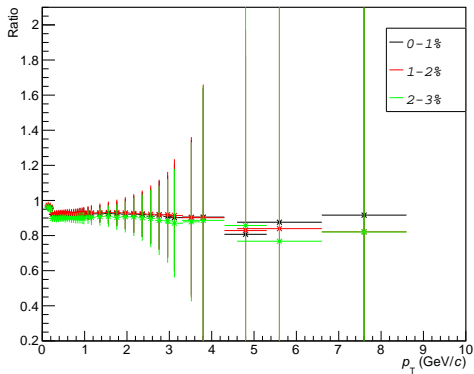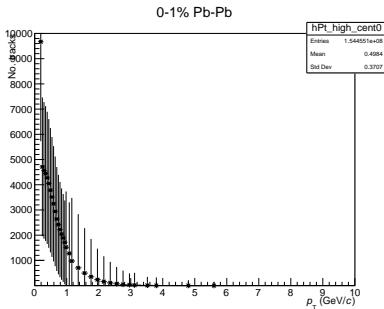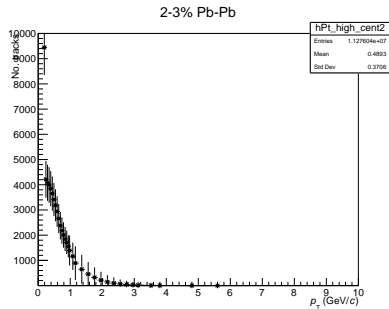图 3: Some problems solved on the ratio

Progress

图 4: Errors too big.

Origin of the problem

- We trace back the problem on the size of the errors to the original distributions (before doing the ratio).

(a) $0 - 1\%$

(b) $1 - 2\%$