

Subject: Re: [Sphenix-intt-l] Weekly INTT Meeting <minutes>
From: Itaru Nakagawa <itaru@riken.jp>
Date: 2024/06/05 15:01
To: sphenix-intt-l@lists.bnl.gov

Dear all,

Added Yasuyuki's function below in the minutes.

o Tracking algorithm of INTT hits <Hinako>

- The plots are to be approved in the tracking meeting as well as INTT group. There is 9:30AM on this Friday in BNL time (<https://indico.bnl.gov/event/23717/>)
- Each plots are to be clearly and well described details not to confuse audiences.
- p_T spectrum is the *physics* plot. It has to be extremely well studied before it is shown to public.
- **Hinako** is encouraged to compare her p_T distribution to published data.
- **Hinako** should try to fit the p_T resolution plot with the function below.

$$\sigma_p/p = c_1 \oplus c_2 p = \sqrt{c_1^2 + c_2^2 p^2}$$



- **Hinako** should include the 2-dim p_T -resolution plot as well for the approval as the intermediate step towards p_T -resolution divided by p_T plot.
- Slide 12 right bottom plot indicates the Gaussian fit undershoots the data. The data tail is thicker than the Gaussian so 99.6% estimation can be overestimation. **Hinako** should check.
- To improve the purity in slide 12, the deta filter should be applied as well as $d\phi$ one. Otherwise state it clearly * $d\phi$ only* to be more specific.

o z-vertex determination <Mahiro>

- **Mahiro** presented known as "truncated mean method" in the z-vertex reconstruction and demonstrated better z-vertex reconstruction resolution.
- **Mahiro/Takashi** should go thru the approval process in the tracking meeting as well.
- **Mahiro** should write more details about blue and pink distributions in slide 9.
- **Cheng-Wei** discusses with Yasuyuki in person about the truncated method next week.

o z-cluster study <Tomoya>

- As a next step, **Tomoya** should introduce correlated and uncorrelated hit clusters in his toy MC.
- Upon request from **Tomoya**, a dedicated session will be formed within INTT team before Tomoya releases the analysis note to the entire collaboration.

o Software Update <Joseph>

- **Joseph** shouldn't remove Jaemin's module from the core software now until we determine which module to be employed later.
- **Joseph** provides interface to both raw and offline data.
- **Takashi** and **Joseph** discuss offline for more detailed decision.

o INTT weird events <Cheng-Wei>

- **Cheng-Wei** address if the super hot chip can possibly cause weird behavior of intt1 (= Quadrant-1) even in Run23 data.

Regards,

-itaru

On 2024/06/05 12:51, Itaru Nakagawa wrote:

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Here are the minutes from today's meeting.

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Sphenix-intt-l mailing list
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<https://lists.bnl.gov/mailman/listinfo/sphenix-intt-l>