Dear all

Here is the minutes from today's meeting.

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o Strange phi-cluster size 43 and 46 <Manami>

- Investigated strange peaks the phi-cluster size distribution at 43 and 46. The ADC distributions of these clusters have sharp peaks periodically. The largest peak has average 60 ADC value per channel.

- **Manami** looks into each hits of these clusters 43 and 46. Cheng-Wei suggested hit map of this event may be a portable way to check using existing resources.

o Chip occupancy and event BCO <Cheng-Wei>

- Hit multiplicity distribution per BCO of FPHX chip showed a cut off at 74 channels (around 35 for half entry chip, reasonably consistent with our understanding of the half entry issue).

- The peak at 74 due to the cut off is inconsistent with 43 and 46 peaks in the phi-size distribution. These may be different cause though, it is now mysterious why we don't see any peak at 74 then in the phi-size distribution.

- **Cheng-Wei** will check the open_time condition of this run to see if we can explain the spike.

- **Takashi** recalls that the subsequent trigger occurred before the open_time closes, it will be ignored according to Raul. However he is not sure what happens if the subsequent trigger occurs before the "open_time" closes for the last hits towards the end of n_collision window.

- The minimum interval between consecutive hits is observed to be 20BCOs according to "this-previous" hit BCO difference plot. According to Hao-reng's analysis, the mixed-up hits are populated around 20 to 40 BCOs. This may indicate that the mixed up can be effectively removed by requiring more than 40 BCO between consecutive events.

- One needs to look into p+p data for the mixed up events since this can be rather severe in the p+p where the interval is much shorter, but the multiplicity is smaller. Need to check how severe is for p+p.

- Trigger rate is higher in p+p, but the multiplicity is lower. So the chance for the hits arrive late to Felix are smaller compared to Au+Au. These late arrival hits can be the candidate to be mis-labeled by wrong BCO_FULL from the present hypothesis. However, we should evaluate the effect quantitatively in p+p before we conclude.

- Itaru wonders if this branch structure of #of clusters innner vs. outer plot is caused by the number of saturated FPHX chips, which can be discrete.

o Momentum resolution improvement using EMCal <Takuya>

Regards,

-itaru

On 2024/12/05 15:28, Itaru Nakagawa wrote:

> Dear all,
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> We will have next INTT weekly meeting in following date/time.
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> **Dec. 5th Thursday 7PM in BNL = Dec. 6th Friday 9AM in Japan = Friday 8AM in Taiwan**
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> I will be traveling to BNL on this day. I may be able to call in from a public space a little after 9AM until 10:50 or so. I have to ask either Takashi or Rachid takes the chair of this meeting.
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> *indico
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> **https://indico.bnl.gov/event/25811/**
>
> *Zoom
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> https://zoom.us/j/92149923535
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> Best regards,
>
> -itaru