



# Status of TSF

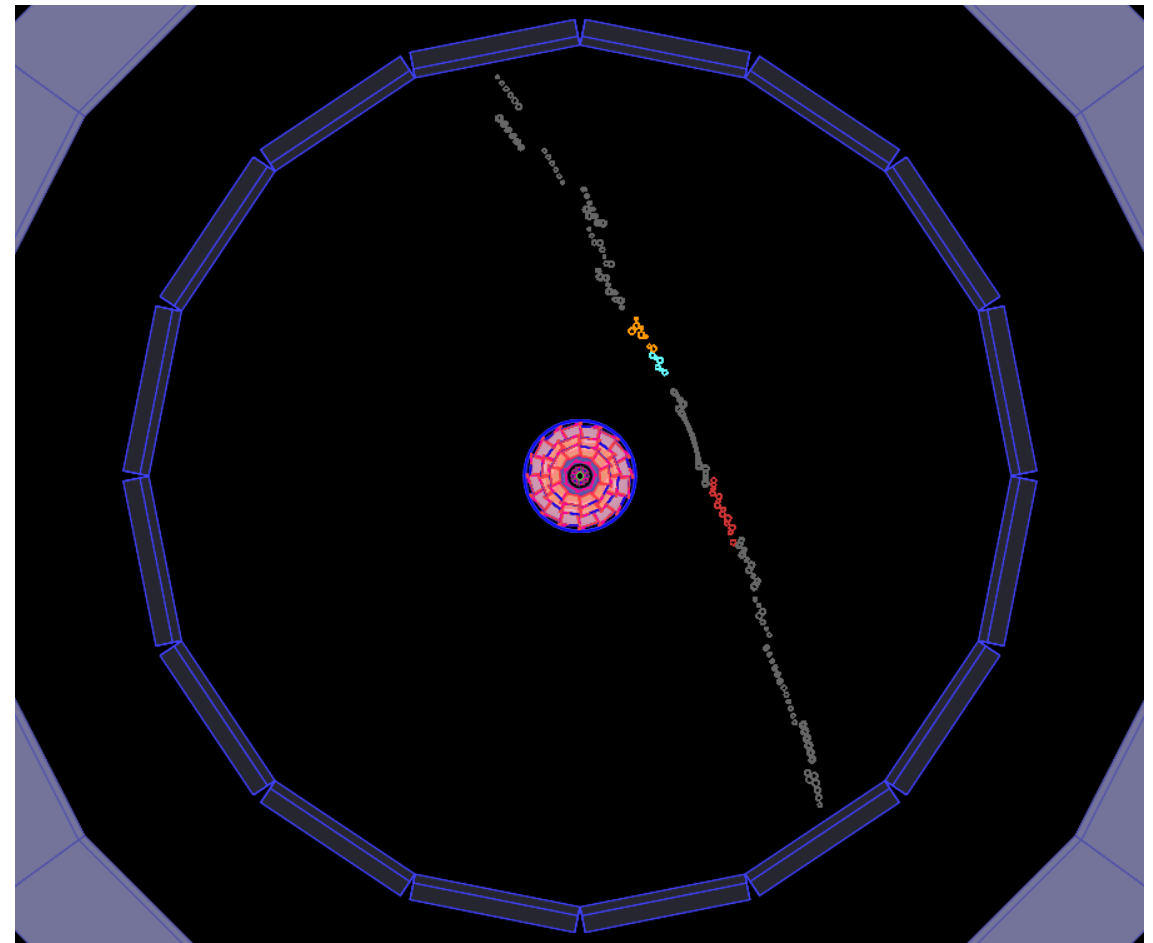
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# Review

- Event w/o back-to-back was triggered.
- It happened due to miss connection.
- Now it's fixed.



by N. Taniguchi

# Output for Tracker

- Output for tracker includes TSID, drift timing info., LR info., and priority cell hit info.
- Incorrect data was discovered in the cosmic runs. (found by Tzu-An)

TSHit0_ID	0	0	0	19	0	18	0	28	88	80	0	94	0	115	0	24	86	91	0
TSHit1_ID	0	0	0	21	0	23	0	81	0	95	0	0	0	127	0	25	87	93	0
TSHit2_ID	0	0	0	23	0	26	0	82	0	0	0	0	0	126	0	27	88	84	0
TSHit3_ID	0	0	0	22	0	25	0	83	0	0	0	0	0	127	0	27	0	89	0
TSHit4_ID	0	0	0	23	0	27	0	84	0	0	0	0	0	54	0	11	0	90	0
TSHit5_ID	0	0	0	22	0	27	0	85	0	0	0	0	0	55	0	12	0	91	0
TSHit6_ID	0	0	0	0	0	11	0	86	0	0	0	0	0	62	0	13	0	0	0
TSHit7_ID	0	0	0	0	0	12	0	87	0	0	0	0	0	55	0	14	0	0	0
TSHit8_ID	0	0	0	0	0	13	0	89	0	0	0	0	0	61	0	15	0	0	0
TSHit9_ID	0	0	0	0	0	14	0	90	0	0	0	0	0	57	0	0	0	0	0

# Bugs in Output for Tracker

- TSHits should be sorted by TSID.
- 1 TS candidate may have several TSHit in different clock. But not in same clock.

TSHit0_ID	0	0	0	19	0	18	0	28	88	80	0	94	0	115	0	24	86	91	0
TSHit1_ID	0	0	0	21	0	23	0	81	0	95	0	0	0	127	0	25	87	93	0
TSHit2_ID	0	0	0	23	0	26	0	82	0	0	0	0	0	126	0	27	88	84	0
TSHit3_ID	0	0	0	22	0	25	0	83	0	0	0	0	0	127	0	27	0	89	0
TSHit4_ID	0	0	0	23	0	27	0	84	0	0	0	0	0	54	0	11	0	90	0
TSHit5_ID	0	0	0	22	0	27	0	85	0	0	0	0	0	55	0	12	0	91	0
TSHit6_ID	0	0	0	0	0	11	0	86	0	0	0	0	0	62	0	13	0	0	0
TSHit7_ID	0	0	0	0	0	12	0	87	0	0	0	0	0	55	0	14	0	0	0
TSHit8_ID	0	0	0	0	0	13	0	89	0	0	0	0	0	61	0	15	0	0	0
TSHit9_ID	0	0	0	0	0	14	0	90	0	0	0	0	0	57	0	0	0	0	0

# Bugs in Output for Tracker

- Some hits have wrong TSID.
  - Output from TSF2, TSID should be smaller than 96.
  - But there're TShits with TSID larger than 96.

TSHit0_ID	0	0	0	19	0	18	0	28	88	80	0	94	0	115	0	24	86	91	0
TSHit1_ID	0	0	0	21	0	23	0	81	0	95	0	0	0	127	0	25	87	93	0
TSHit2_ID	0	0	0	23	0	26	0	82	0	0	0	0	0	126	0	27	88	84	0
TSHit3_ID	0	0	0	22	0	25	0	83	0	0	0	0	0	127	0	27	0	89	0
TSHit4_ID	0	0	0	23	0	27	0	84	0	0	0	0	0	54	0	11	0	90	0
TSHit5_ID	0	0	0	22	0	27	0	85	0	0	0	0	0	55	0	12	0	91	0
TSHit6_ID	0	0	0	0	0	11	0	86	0	0	0	0	0	62	0	13	0	0	0
TSHit7_ID	0	0	0	0	0	12	0	87	0	0	0	0	0	55	0	14	0	0	0
TSHit8_ID	0	0	0	0	0	13	0	89	0	0	0	0	0	61	0	15	0	0	0
TSHit9_ID	0	0	0	0	0	14	0	90	0	0	0	0	0	57	0	0	0	0	0

# Bugs in Output for Tracker

- For 2D finder test, debugging was postponed.
- Now, temporal setup for 2D tracker is ready and debugging for TSF is on-going.
- Cosmic event with incorrect data is used for debugging.

# Temporal Setup

- TSF sends TSHitmap for tracker instead of TSID and timing info. temporally.
- There're fake TShits from outer super layers during making TSHitmap.
  - I wire hit in TS made TSHit.
  - It's fixed now.



# Output for ETF

- Output for ETF has been changed.
  - clock counter(9bits) + # of TSHit(9 bits) + timing information (10x9 bits)
    - Original design : c.c+TSHitMap+timing info.
  - No 2D short tracker at ETF board.

# Summary

- There're bugs in output for tracker.
  - TSF sends TSHitmap for tracker temporally.
    - Fake hit problem is fixed.
- Output for ETF has been changed.
- Debugging is on going.

# Backup