

# INTT tracking in pp with SIM

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Development of tracking algorithm in pp collision with simulation

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**Goal in this workshop:** Evaluation of my tracking algorithm with the truth information and sPHENIX tracking group

## My To-Do List

- Evaluation of my tracking algorithm with the truth track
  - Calculation of the angle ( $\phi$  and  $\theta$ ) of my track
  - Checking the angle of the truth track
  - Comparison of the angle between my track and the truth track
- Evaluation of my tracking algorithm with the track which is made by sPHENIX tracking group
  - Understanding the tracking system of sPHENIX tracking group
  - Taking the tracking data of sPHENIX tracking group
  - Comparison between my track and the track which is made by sPHENIX tracking group

# Detection efficiency using cosmic ray data

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Determination of detection efficiency of INTT using cosmic ray data as a function of half-ladder/chip/channel.

**Goal in this workshop:** Checking data, Migration to Fun4All framework, stability check of runs

## My To-Do List

- Checking whether all cosmic ray data was transferred to the SDCC storage
- Processing all cosmic ray data with the latest decoder (DST production?)
- Running a sample Fun4All macro
- A very simple analysis within the Fun4All framework (with the input of the event-base TTree or DST?)
  - Giving INTT hits, clustering, converting clusters to hits (in the sPHENIX tracking framework?)
  - Applying a hot channel map
  - Applying the latest geometry correction from the survey data
  - Checking hit position distribution (x, y, z)
  - Checking ADC distribution
- Event selections for finding cosmic track
- A study using reconstructed cosmic tracks
  - Checking angle (both  $\theta$  and  $\phi$ ) distributions
  - Checking cluster size distribution



A figure for an explanation if needed.