

# **Analysis of TAx4 hybrid trigger and events**

For ICRC 2021 flash talk

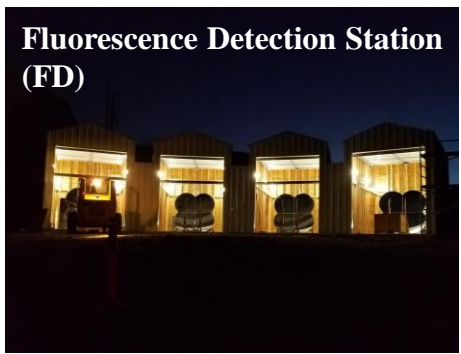
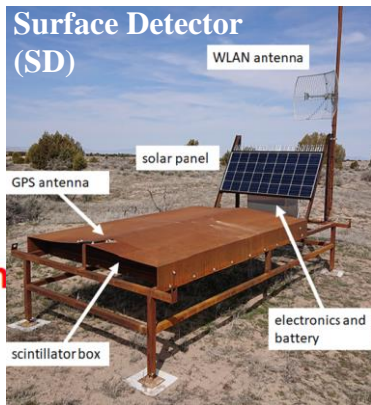
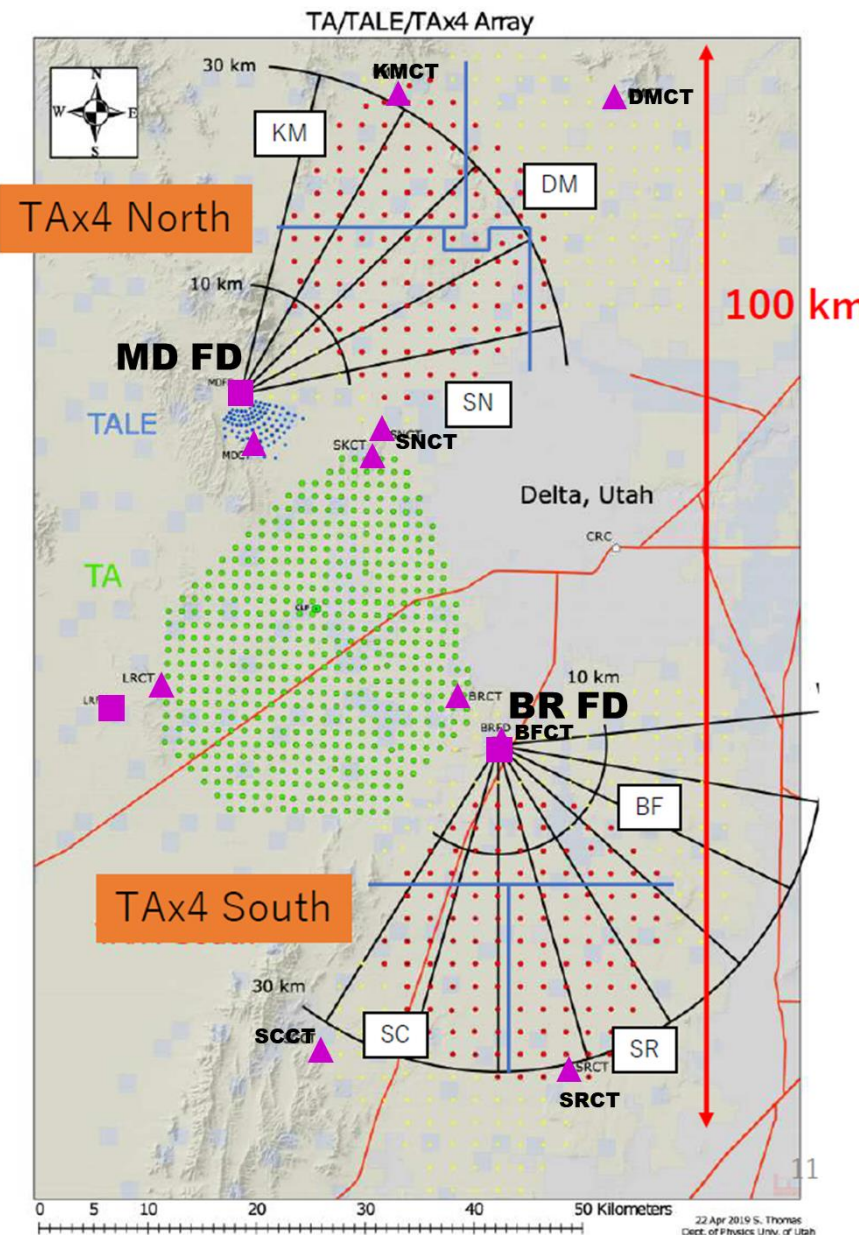
S.W. KIM

on behalf of the Telescope Array Collaboration

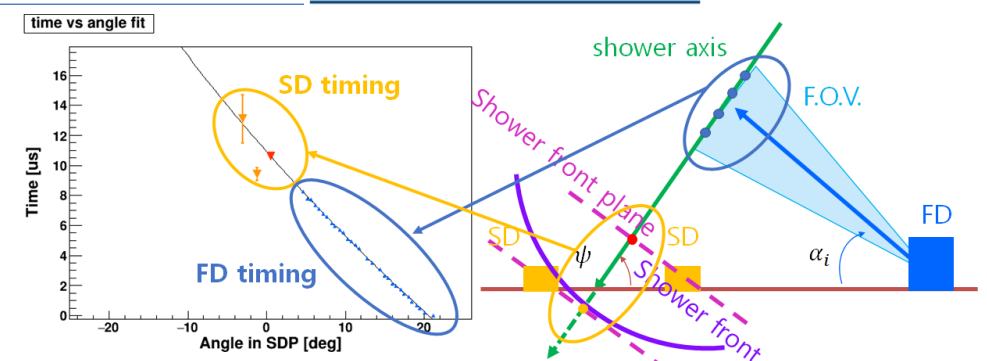
# Analysis of TA<sub>x</sub>4 hybrid trigger and events

S.W. Kim<sup>1</sup> on behalf of the Telescope Array Collaboration

<sup>1</sup> Department of Physics, Sungkyunkwan University, Jang-an-gu, Suwon, Republic of Korea



1. TA<sub>x</sub>4 project
  - 2 TA<sub>x</sub>4 FD stations + 257 SDs
  - The total area including the TA SD is approximately 2.5 times larger than the TA SD
2. The purpose of the project
  - To accelerate the data collection speed for the hotspot and other anisotropy study



3. Hybrid detection and event reconstruction
  - The **hybrid trigger** is issued from FD when there is an FD trigger and sent to the communications towers to take SD signals with greater than 0.3 single-muon peak **independent of SD shower trigger**
  - **FD mono information + SD information -> Accuracy improving**

## 4. Reconstruction result (A typical event with hybrid trigger)

