

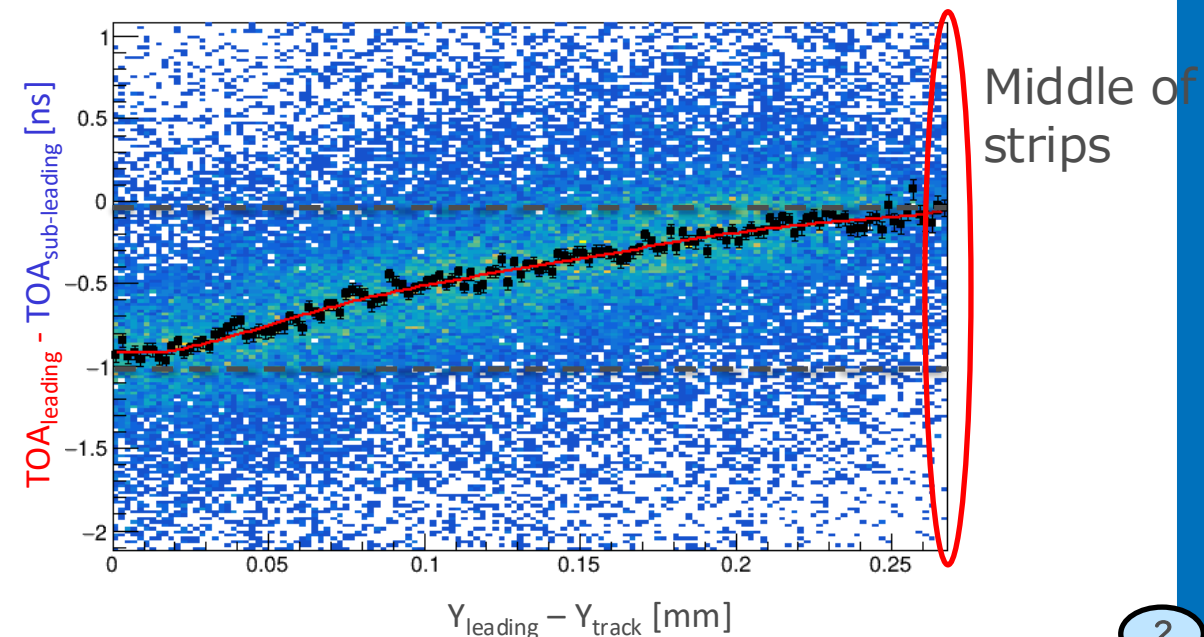
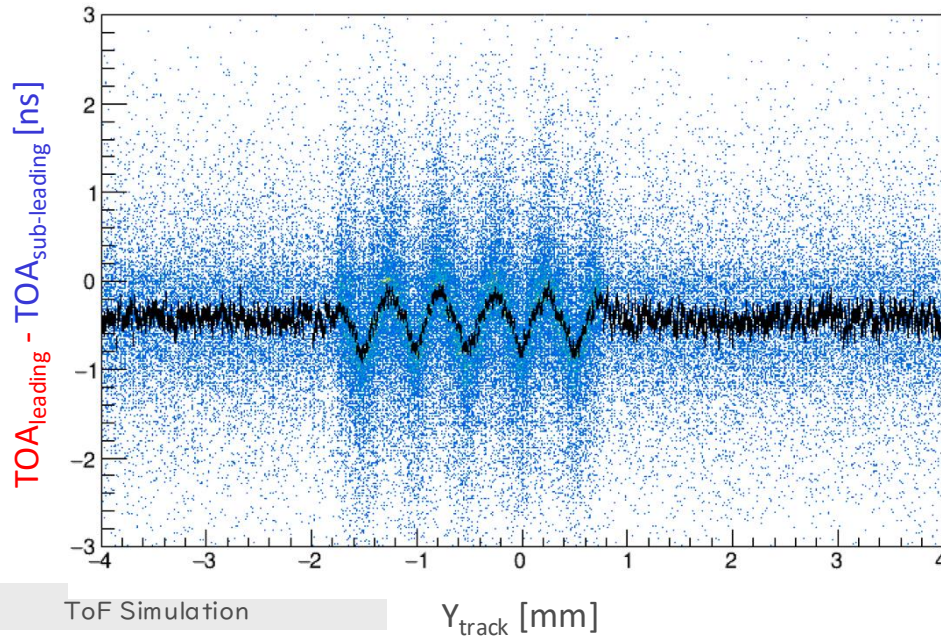
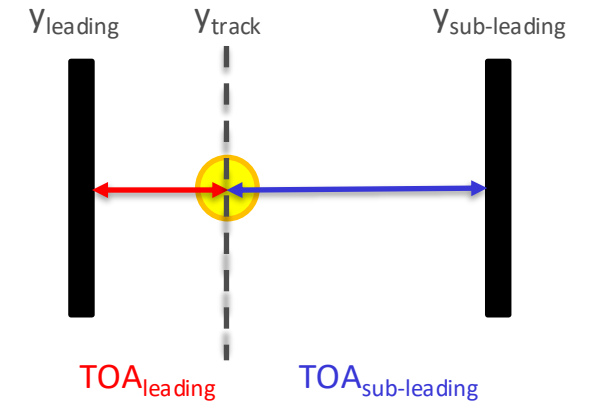
TOF Simulations Status

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Urgent task

- Significant signal delay is observed in the AC-LGAD strip sensor during the beam test analysis by Satoshi
 - Checked timing difference between leading strip and sub-leading strip
 - up to 1 ns delay depending on actual incident location of particle penetration
 - Charge drift velocity in the sensor is slow ??
 - More significant than pixel AC-LGAD



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Tracking is important

- As in the previous page, if there is the delay like: 1 ns/250 μm
 - Expect 10 ps delay just in 2.5 μm interval
 - It is surprising for me
 - Satoshi will do further investigation
- Need to investigate tracking performance in front of BTOF sensor
 - Can be done as same as we done in hpDIRC study?
- Watanabe-san is a good person to study

Backup

- What happens if the particle penetrates sensor with angle?

