STT Status

• Hardware/firmware/software
• Integration

The short answer: we could productively use L1CTT inputs today (little else remains before this is critical path)…
Hardware/Firmware/Software

• **All hardware here + spares**
  - crates, processing boards, I/O cards, ...
  - All individual pieces tested

• **Firmware**
  - All known required features in place
  - Debugging ongoing *(see integration)*

• **Software**
  - Online code mostly in place *(bookkeeping?)*
  - Can configure 1 sector from control room
  - Trigsim in place and verifying hardware
Integration

• Reminder: 12 copies of basic sector
  - Testing 1 full sector for path 1-2 mos.
• Have succeeded in
  - Sync’ing with SCL
  - Receiving L1CTT test data from sender
  - Receiving SMT data from detector
  - Transmitting same event >$10^7$ times w/out problems from fake input & buffers to alphas!
• standalone subsystem testing also
  - E.g. test vectors to verify trigsim...
Remaining Items?

• Debugging block transfers to L3
  - Can already do word-at-a-time, so not a critical path item (1/5 the rate...)

• Online stress tests with collider data
  - Requires L1CTT inputs

• Trigsim using collider data to verify tables and online results

• Debugging when problems arise

• 11 copies installed...
Conclusions

• Debugging well along along
• Can send test data through system to L2
• We are essentially limited by fake data sender event capacity...

We could make productive use of at least 1 sector of L1CTT data today...

1. Run w/out crashing and keep sync
2. Compare results with trigsim of same events

This is effectively our critical path item...