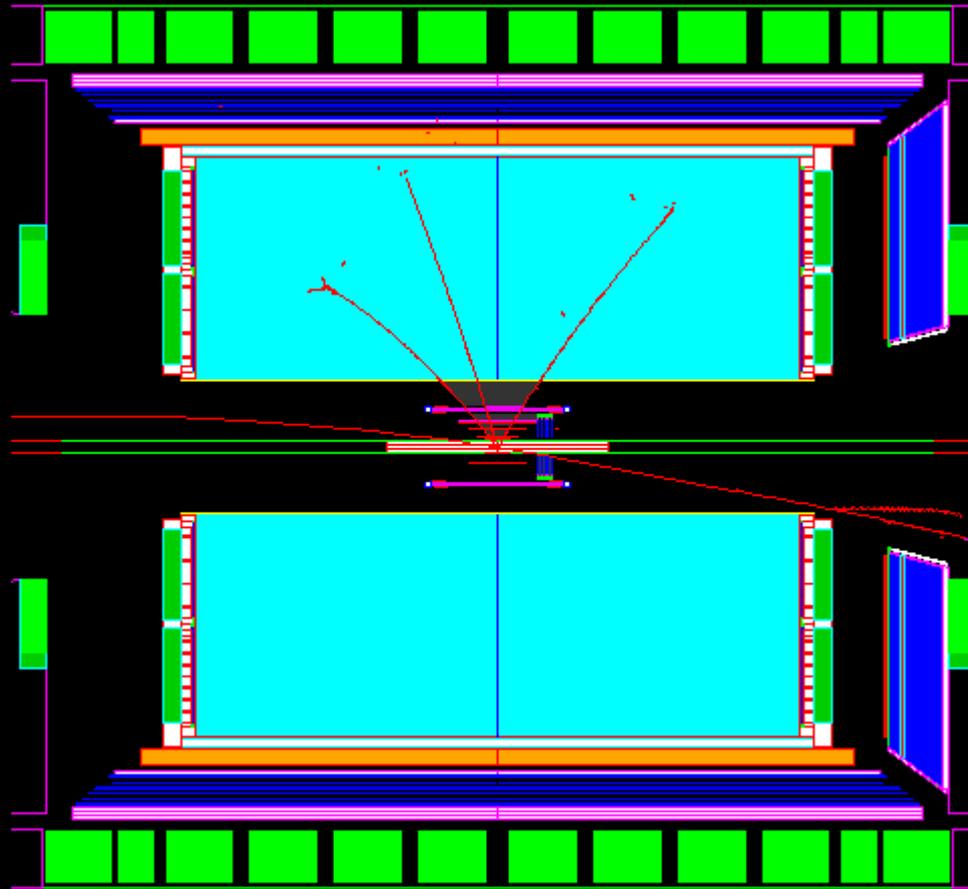
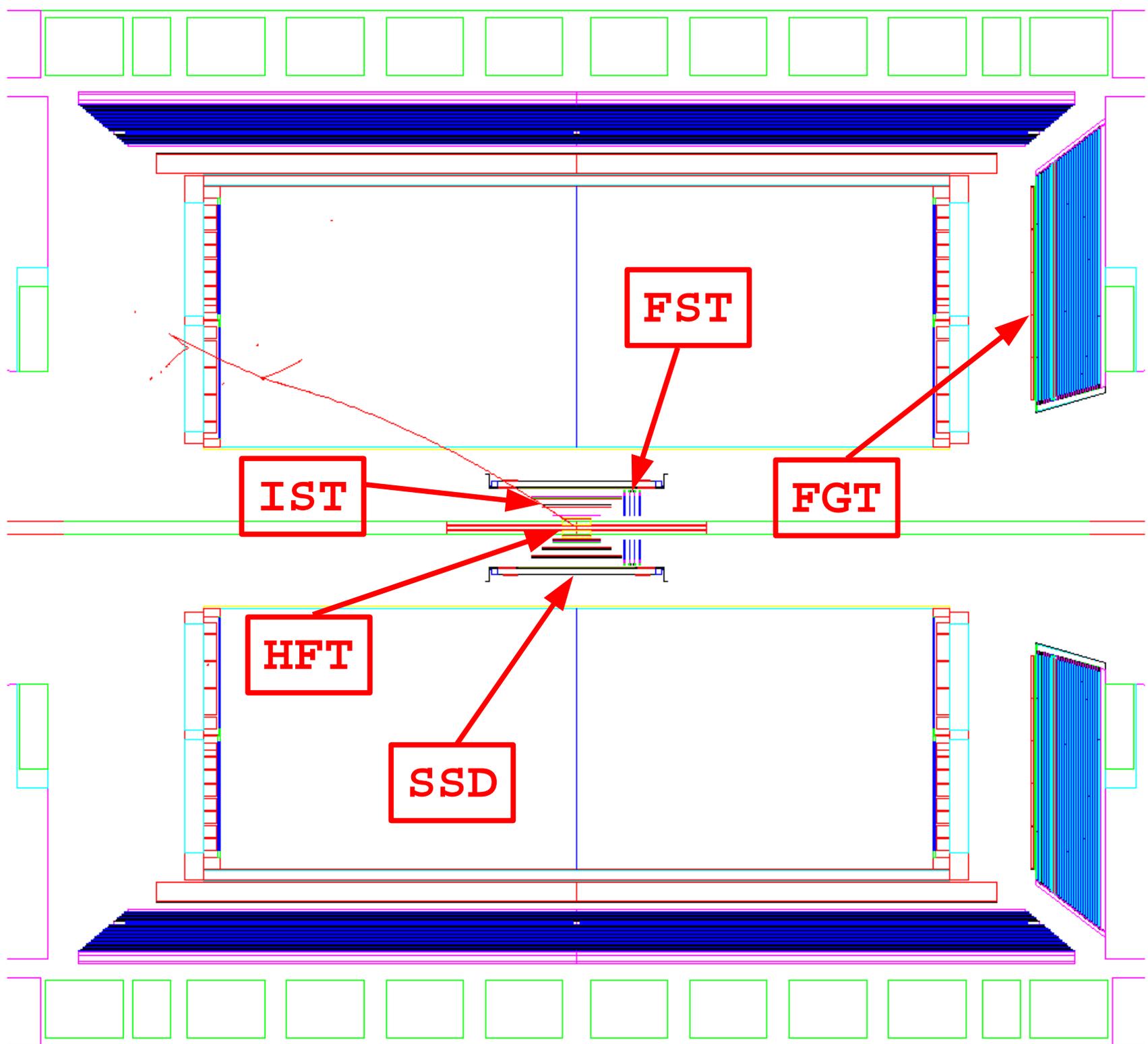


Simulation Status

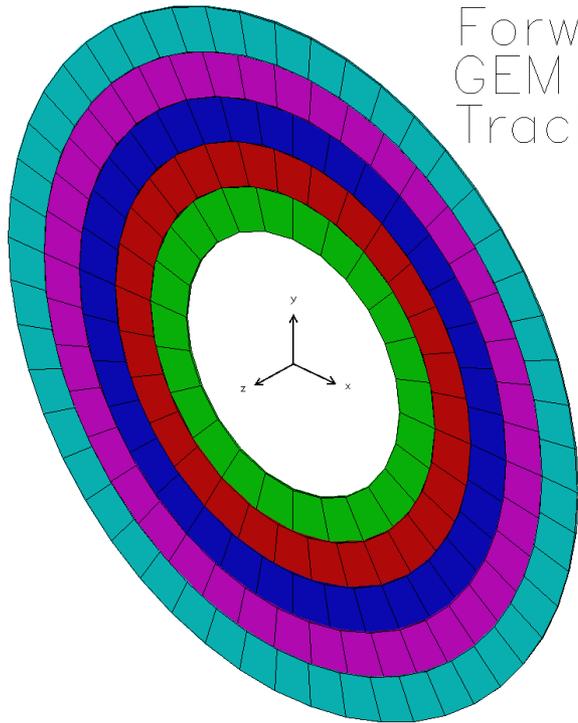


Gerrit van Nieuwenhuizen
Bates R&E Meeting
May 11, 2005

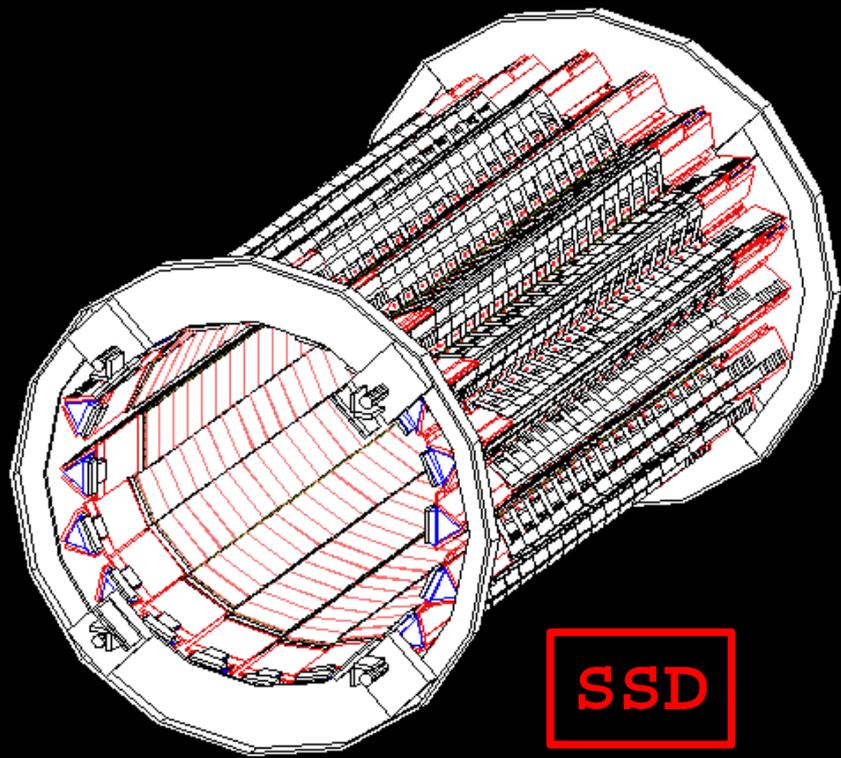




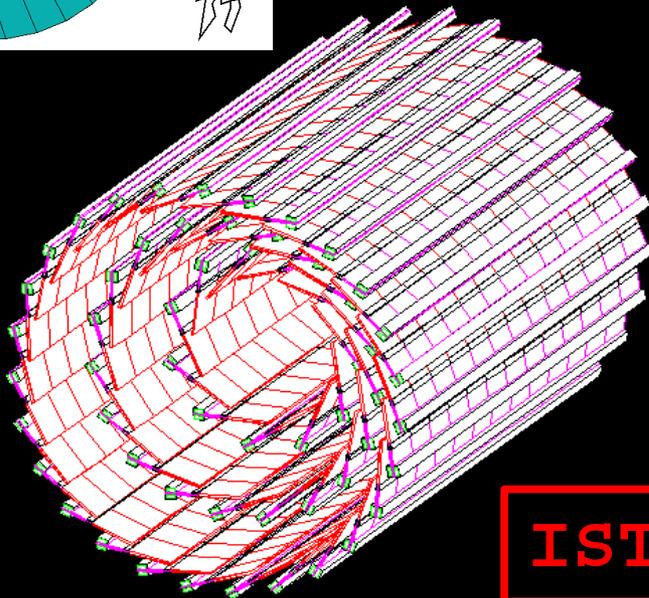
Forward
GEM
Tracker



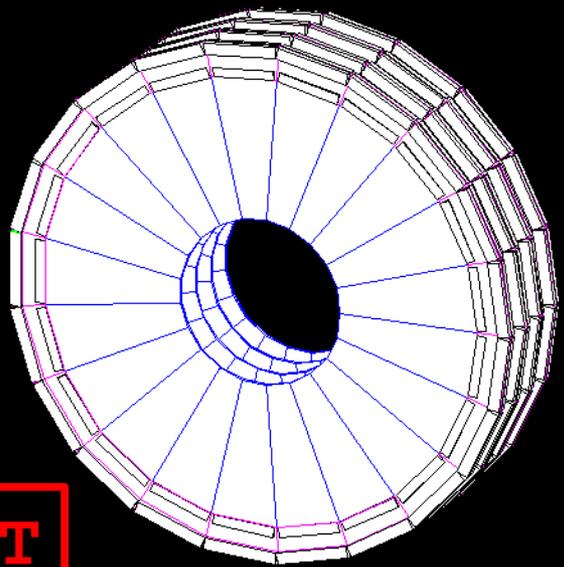
FGT



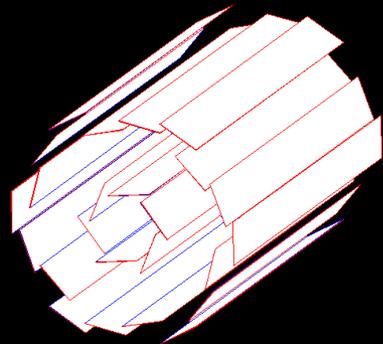
SSD



IST



FST

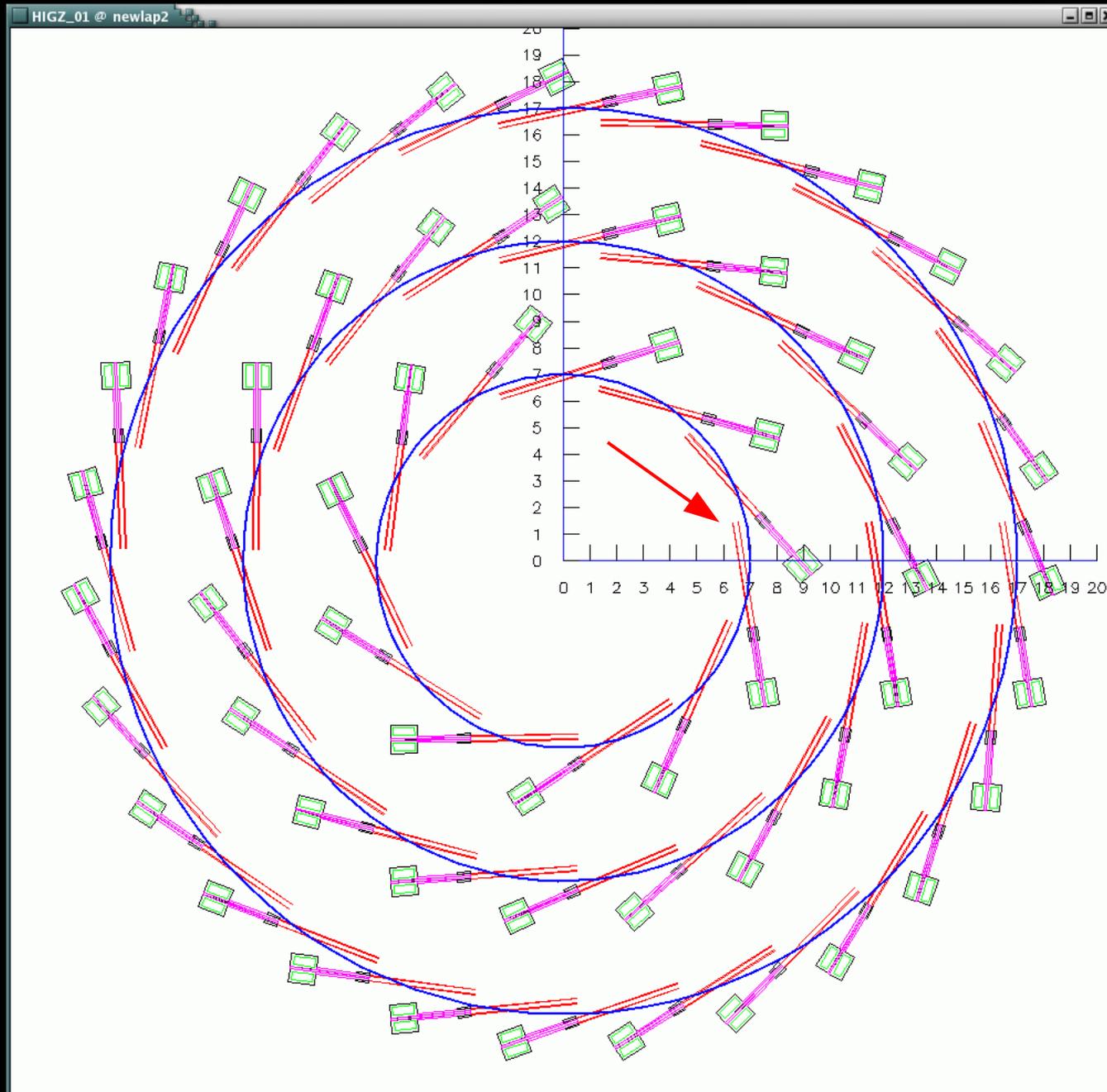


HFT

Short term simulation goals

- 🌀 Occupancy and hit ambiguities in IST
- 🌀 Back pointing IST to HFT
- 🌀 $e^+ e^-$ charge separation in FST/FGT

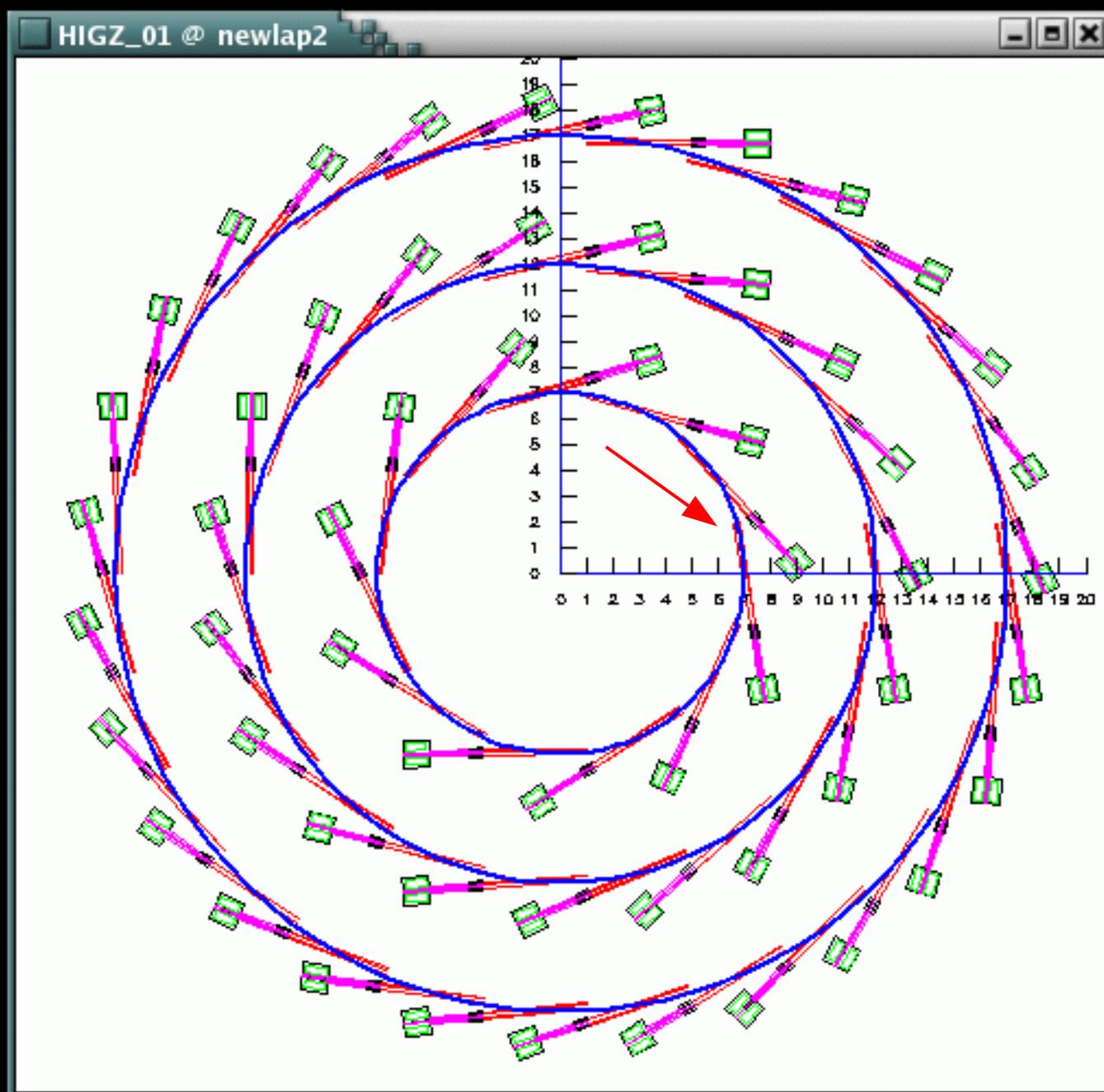
Problem with IST ladders



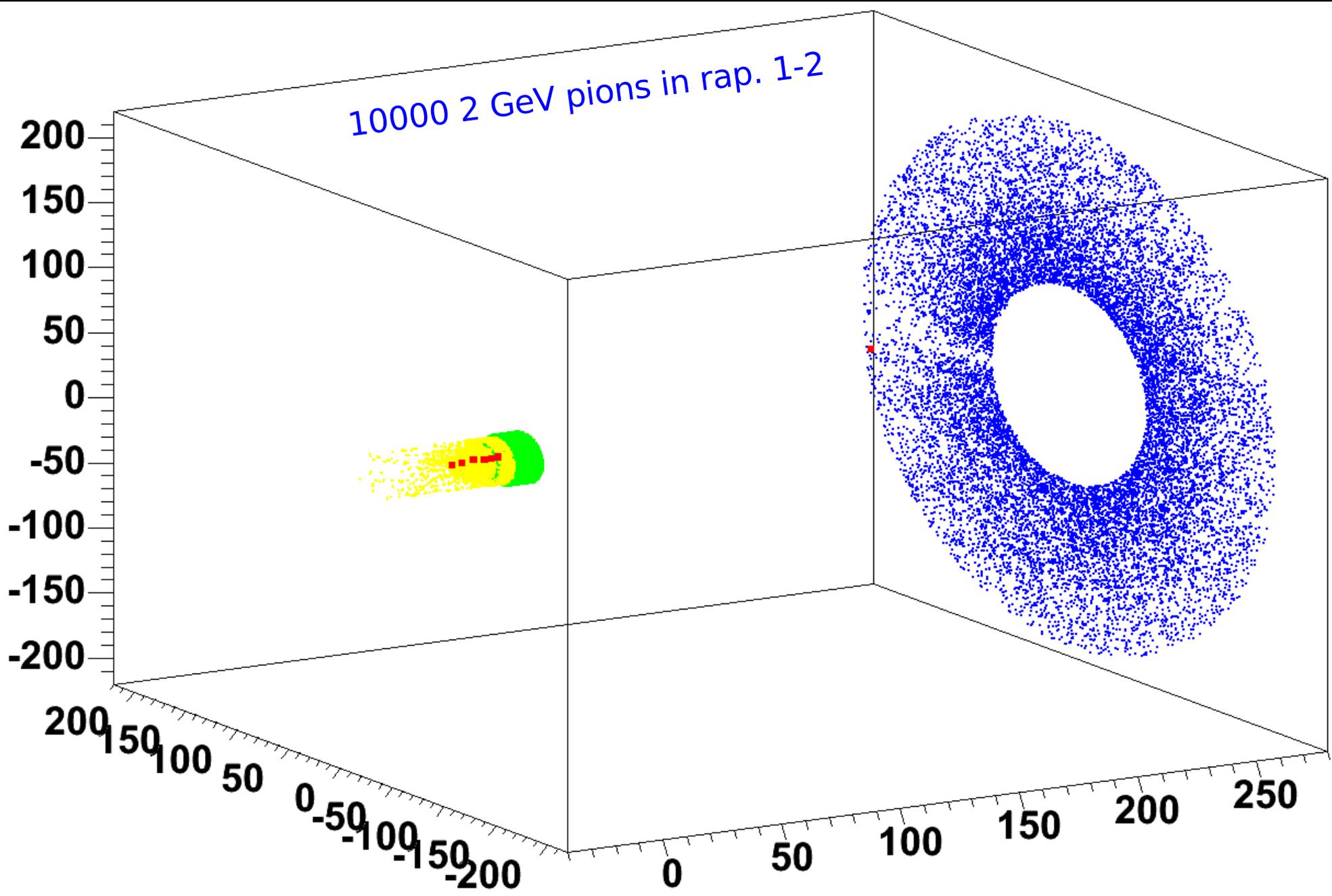
Problems
with
shifts
and
rotation

-->

IST ladders are now correct



Hits and 'track' IST/FST/FGT



The MIT-STAR computing farm



- 2 dual Xeon workstations available
- STAR software system mounted through afs
- STAR database connectivity through MySQL
- ROOT installed
- STARSIM installed (= STAR GEANT)
- ROOT4STAR installed
- BFC operational (= STAR event chain)
- No batch system available, users are responsible for load balancing
- Time to expand?



- 2 Dell M60 laptops
- 1 running STAR software system
- No afs, straight copy of STAR system
- Database connectivity
- Used for debugging
- Fast enough for small MC's

To do list

- 🌀 Make sure that GEANT geometries and simulation geometries agree in detail
- 🌀 Keep checking IST/FST/FGT hits
- 🌀 Using ITTF tracking code for HFT/IST/SSD
- 🌀 Using old Helix fit code for FST/FGT
- 🌀 Start generating GEANT event files and convert to STAR hit root files
- 🌀 Start tracking without 'hit smearing'

Hamamatsu preliminary quote

2) Here is their ballpark pricing (please see below).

2-1) Barrel Straight (320umt, 200V min)

NRE: \$59,000

5pcs: 2,100 each

618pcs: 450 each

Get 6 sensors in 2005

2-2) Barrel Stereo (320umt, 200V min, SiO₂ layer: 4 umt)

NRE: \$46,800

5pcs: 3,800 each

618pcs: 1,370 each

New quote for 1um SiO₂

Get 6 sensors with 1um SiO₂ in 2005

The factory said if 3umt is acceptable, the price can be reduced. They asked that you please reconsider the thickness.

2-3) Disk Straight (320umt, 200V min)

NRE: \$57,000

5pcs: 3,450 each

84pcs: 1,675 each

Get 5 (or less) sensors in 2005

2-4) Disk Stereo

Your request for this detector was for a 4umt SiO₂ layer, however the factory says it is technically impossible for us to make a 4umt layer. They said if 1umt is acceptable, we can make it. Please let me know if 1umt is OK.

New quote for 1um SiO₂

Also, please keep in mind that after receiving a purchase order, it takes 1 month to provide our suggested drawing. And, it will takes another 3-4 months after receipt of approval of the drawing.

Also in terms of thickness for all devices above, it is technically possible to reduce it up to 200umt, but in this case the price become high. Also, if the thickness is reduced, there is possibility that a warp of the chip is more than +/-30um.

Best regards,

Norm Schiller

Confidential