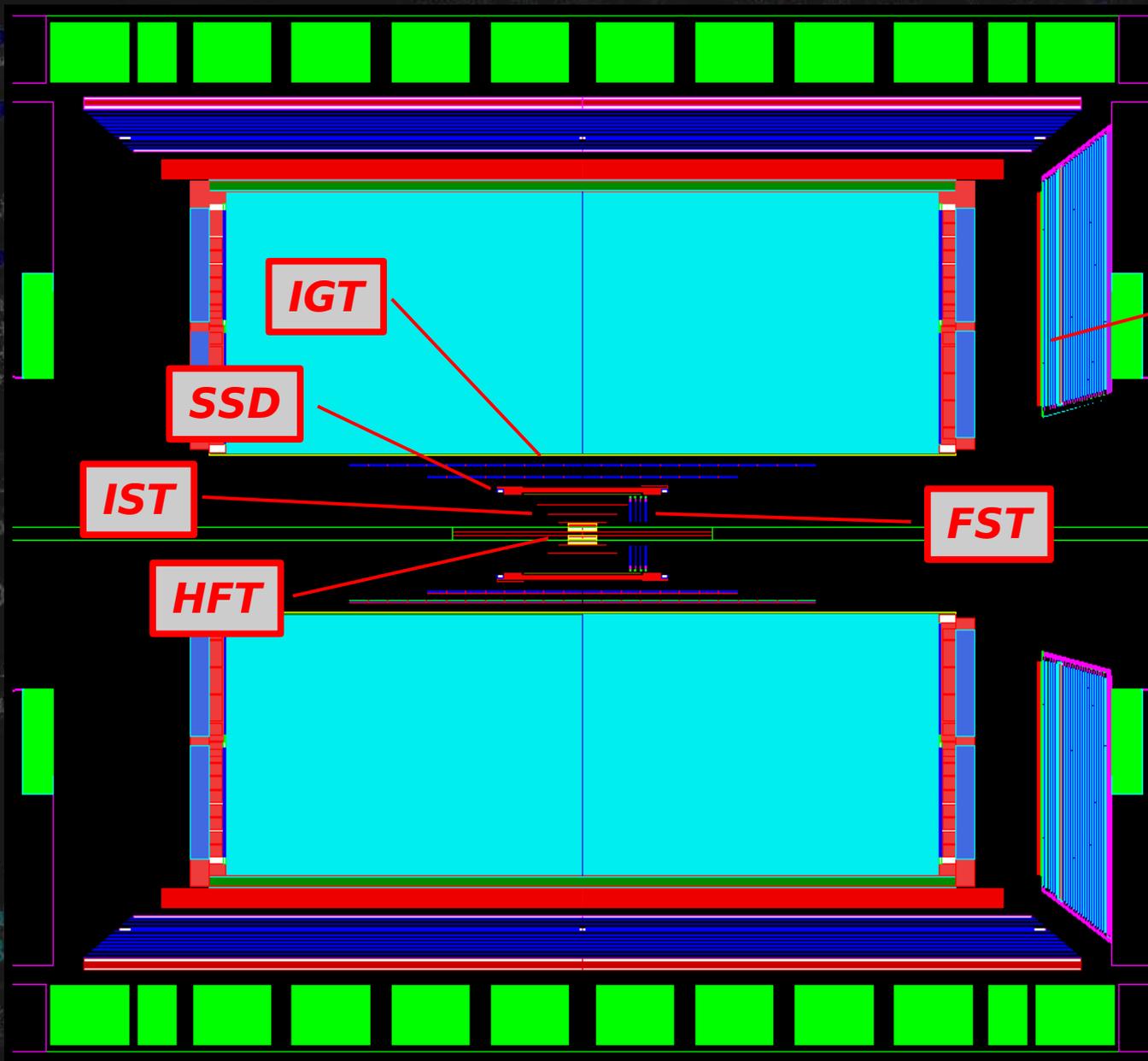


STAR Tracking Upgrade Simulation Status & Proposal

Gerrit van Nieuwenhuizen
Bates R&E meeting
Bates, Feb. 14, 2006



Upgrade overview



GvN Offset perpendicular to the length of the module/ladder:
this to move the midpoint of the sensors back on the requi:

Upgrade Software Issues

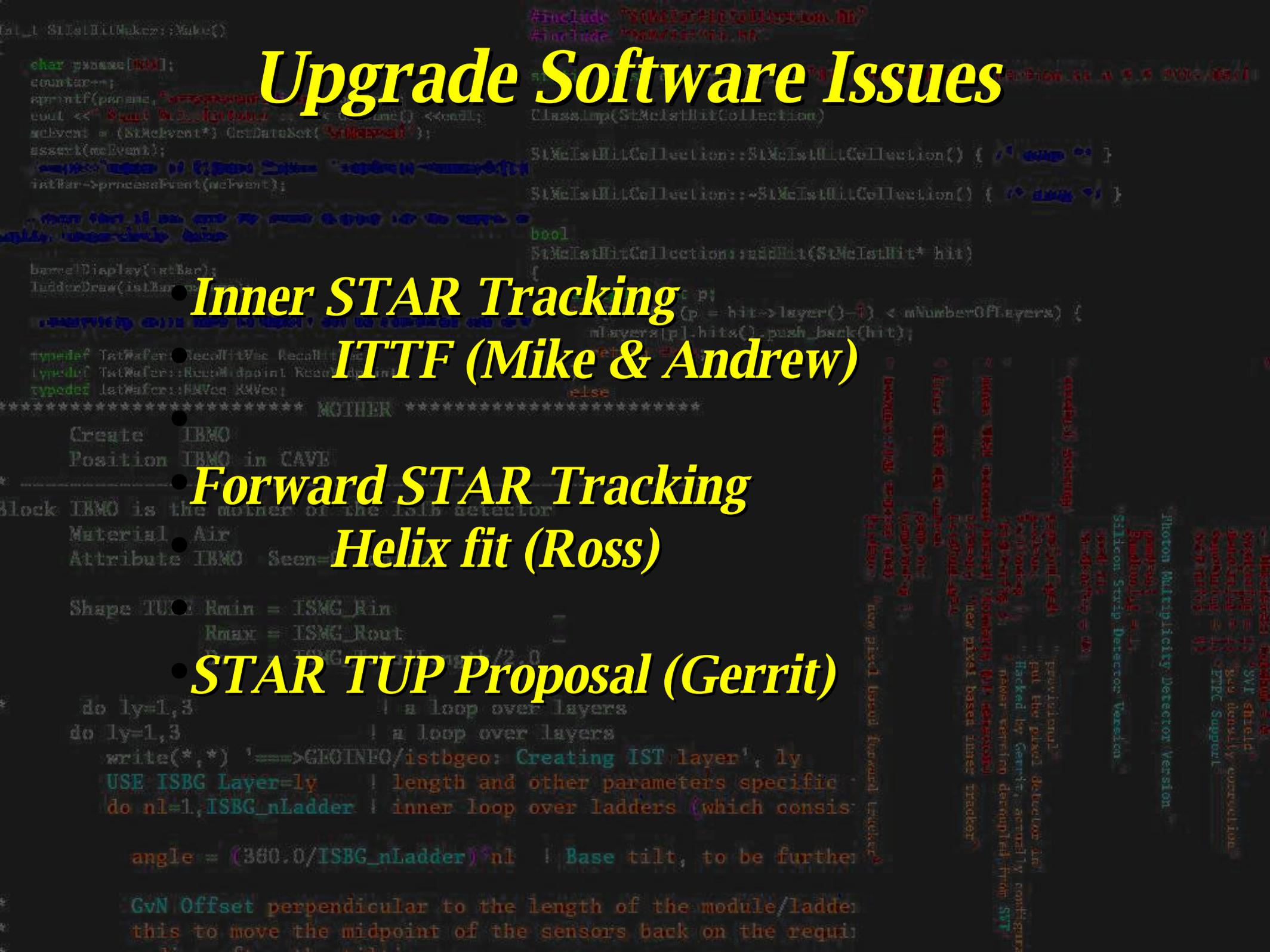
• **Inner STAR Tracking**

• **ITTF (Mike & Andrew)**

• **Forward STAR Tracking**

• **Helix fit (Ross)**

• **STAR TUP Proposal (Gerrit)**



Inner STAR Tracking with ITTF

Mike Miller (MIT) and Andrew Rose (LBL) spent a week at BNL to work with the Guru's

Biggest challenge is the STAR software framework, in particular how the hits are being carried over from one part of the infrastructure to another

Changes to the STAR software required an internal software review, done and changes implemented

Hits are now 'visible' on the tracks found by ITTF, needs some cross checking before feeding them to strip simulator

Forward STAR Tracking with Helix Fit

***The Old, Retired, etc., but still working tracking for STAR
No pattern recognition for finding track candidates
Momentum fit for accurate track information***

***Initially this was set up by Mirko Planinic from Zagreb for
finding electron/positron tracks in the FST and FGT***

Ross Corliss from MIT took over Mirko's code

Is currently able to reproduce Mirko's results

Needs a lot of work still

Ross had exams to work on, done, more progress

by next meeting

STAR Tracking Upgrade Proposal

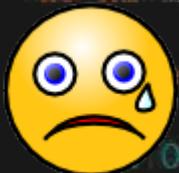
Unclear until about last week what form this 'proposal' should take and what the review procedure would be

Should be CD0

***Proposed upgrades mentioned in mid-term report to DOE
CD0 will be reviewed by RHIC Detector Advisory Committee
on March 14***

If OK then CD0 will go to DOE

***Ernst Sichterman (LBNL), Bernd and Gerrit are currently
working on the CD0***



STAR Tracking Upgrade CD0

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