

Progress on TB RECON - 02/14/00

W. Kroeger, JA Hernando

IDEA:

A program(s) that runs **a standalone reconstruction.**

Inherits from GLASTsim.

Main features:

- A unique Root-Tree (Output/Input)
 - It contains Detector (strips, etc) and Reconstructed (CalClusters, etc) Data
- Flexible code: simple addition/modification code (as needed for some analysis)

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STATUS:

Incorporated:

- **Console or Display applications** -- (GUI-GLASTSIM display)
- **Read/Write Root-tree** --- Read Dan's 1st version (02/02/00), ROOT 2.22
Addition root output file with histos and Ntuples
- **Tracker Reconstruction** --- In the process of debugging (75% completed) **this week**
Incorporated Tracker Geometry **OK**
Incorporated Tracker Rec code **OK**
Introducing the tracker calibration data **this week**
- **Calorimeter Reconstruction** -- In the process of coding (simple Code) **this week**
Information received from Eric and Berrie.

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PLANS:

- Incorporate Rec code --- Calorimeter (ACD?)
- Read/Write Root-tree --- Read Dan's newest version .
Root-tree frozen this week.
Fill the tree recon branches
- Debug/checks -- (2-3 weeks)
- Accessibility --- Incorporate the RECON in CVS (2 weeks) - Paul
Review of the code (better FrameWork?)
- Production -- Ready to production in 3-4 weeks.

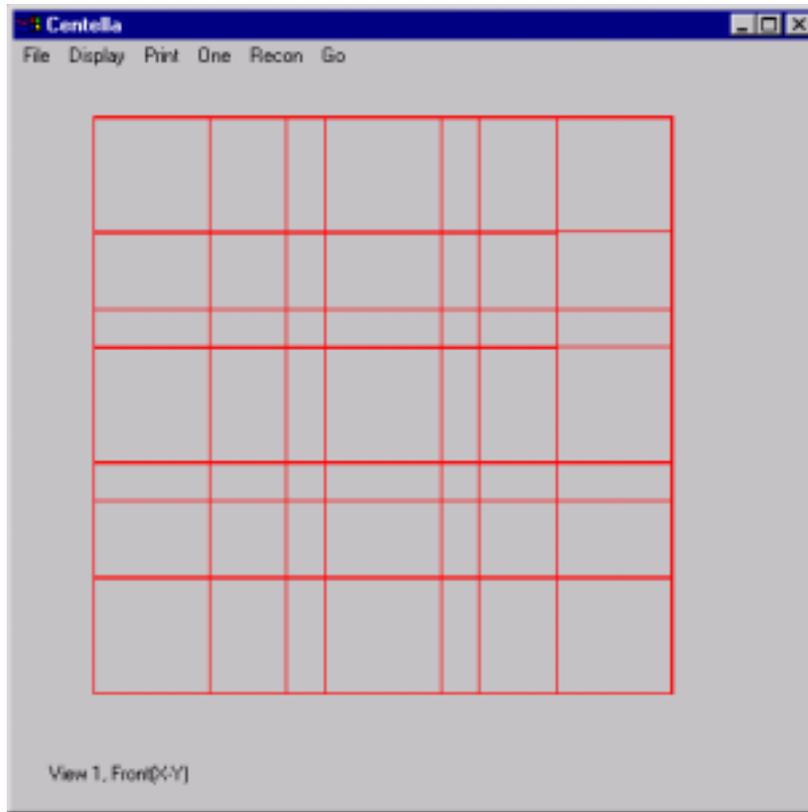
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Tracker Reconstruction:

Geometry - Layer/Ladders/SiDices positions

Si Dices from Top view



Id	type	Mat	view(X=0)	x(cm)	y(cm)	z(cm)
0	LAYER	SI	0	0	0	0.274
0	LAYER	SI	1	0	0	0
1	LAYER	SI	0	0	0	3.20802
1	LAYER	SI	1	0	0	3.48202
2	LAYER	SI	0	0	0	6.69004
2	LAYER	SI	1	0	0	6.41604
3	LAYER	SI	0	0	0	9.62406
3	LAYER	SI	1	0	0	9.89806
3	LAYER	PB	2	0	0	9.98806
4	LAYER	SI	0	0	0	13.1061
4	LAYER	SI	1	0	0	12.8321
4	LAYER	PB	2	0	0	13.1961
5	LAYER	SI	0	0	0	16.0401
5	LAYER	SI	1	0	0	16.2891
5	LAYER	PB	2	0	0	16.3791
6	LAYER	SI	0	0	0	19.4971
6	LAYER	SI	1	0	0	19.2481
6	LAYER	PB	2	0	0	19.5269
7	LAYER	SI	0	0	0	22.4561
7	LAYER	SI	1	0	0	22.7051
7	LAYER	PB	2	0	0	22.7349
8	LAYER	SI	0	-3.21	0	25.9132
8	LAYER	SI	1	0	-3.21	25.6642
8	LAYER	PB	2	0	0	25.943
9	LAYER	SI	0	-6.42	0	28.8722
9	LAYER	SI	1	0	-6.42	29.1212
9	LAYER	PB	2	0	0	29.151
10	LAYER	SI	0	-6.42	0	32.3292
10	LAYER	SI	1	0	-6.42	32.0802
10	LAYER	PB	2	0	0	32.359
11	LAYER	SI	0	-6.42	0	35.2882
11	LAYER	SI	1	0	-6.42	35.5372
11	LAYER	PB	2	0	0	35.567
12	LAYER	SI	0	-6.42	0	38.7452
12	LAYER	SI	1	0	-6.42	38.4962
12	LAYER	PB	2	0	0	38.775
13	LAYER	SI	0	-6.42	0	41.7043
13	LAYER	SI	1	0	-6.42	41.9533
13	LAYER	PB	2	0	0	41.9831
14	LAYER	SI	0	-6.42	0	45.1613
14	LAYER	SI	1	0	-6.42	44.9123
14	LAYER	PB	2	0	0	45.1911
15	LAYER	SI	0	-6.42	0	48.1203
15	LAYER	SI	1	0	-6.42	48.3693
15	LAYER	PB	2	0	0	48.3991

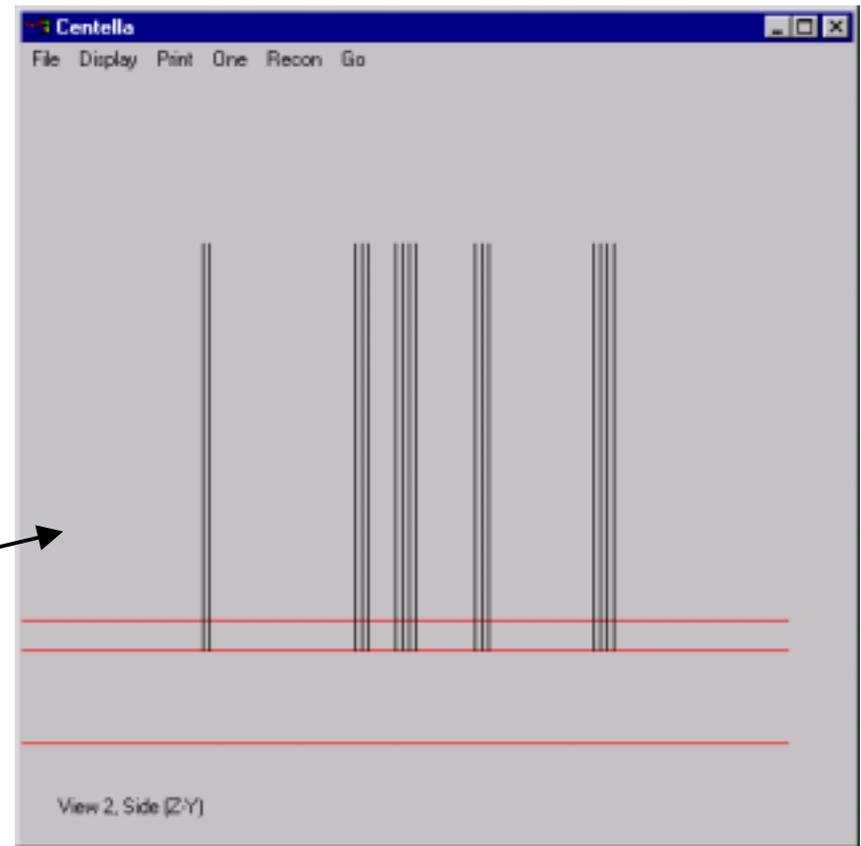
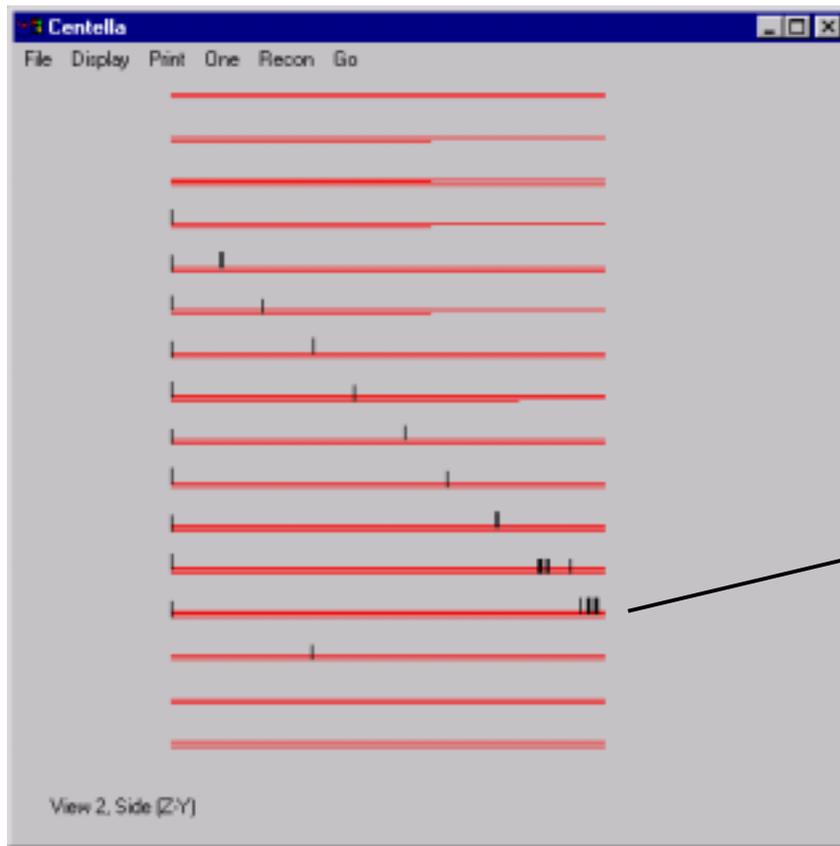
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Tracker Reconstruction Checks

SiClusters



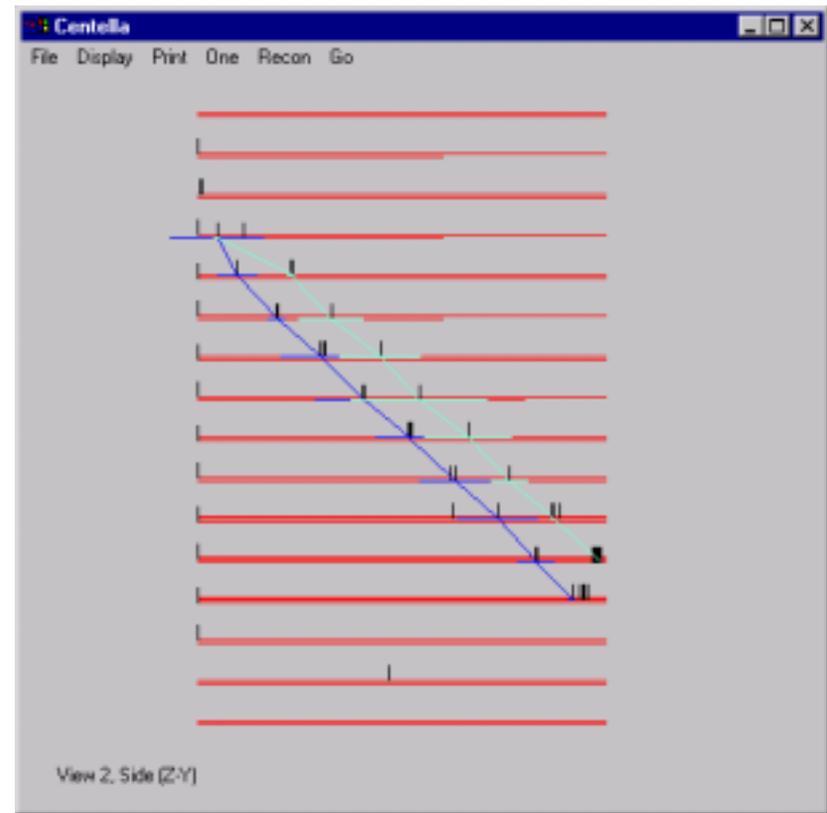
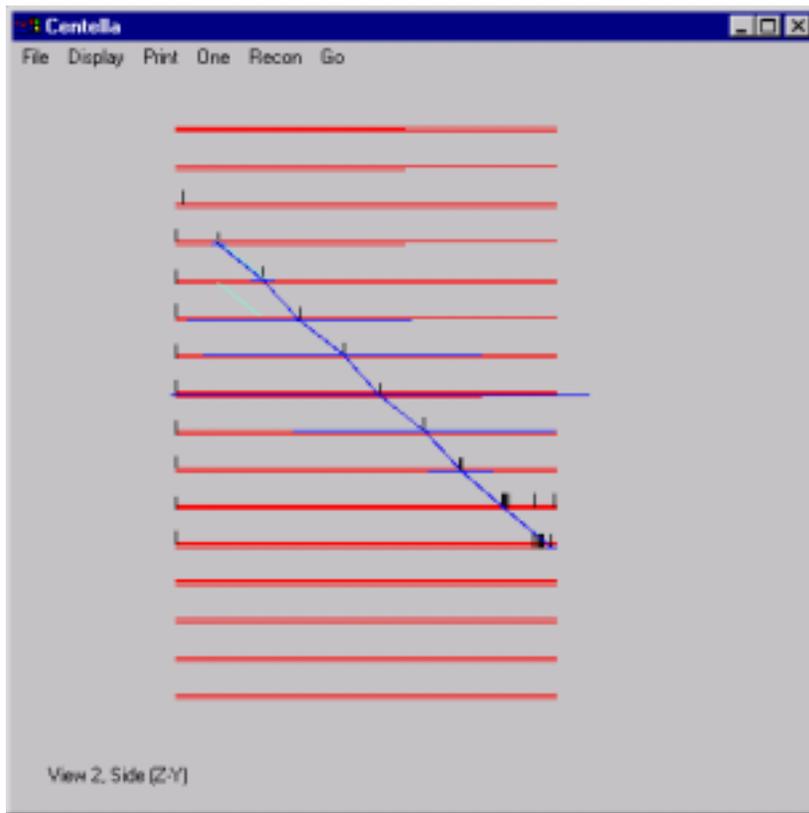
UCSC

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Tracker reconstruction

Electron run

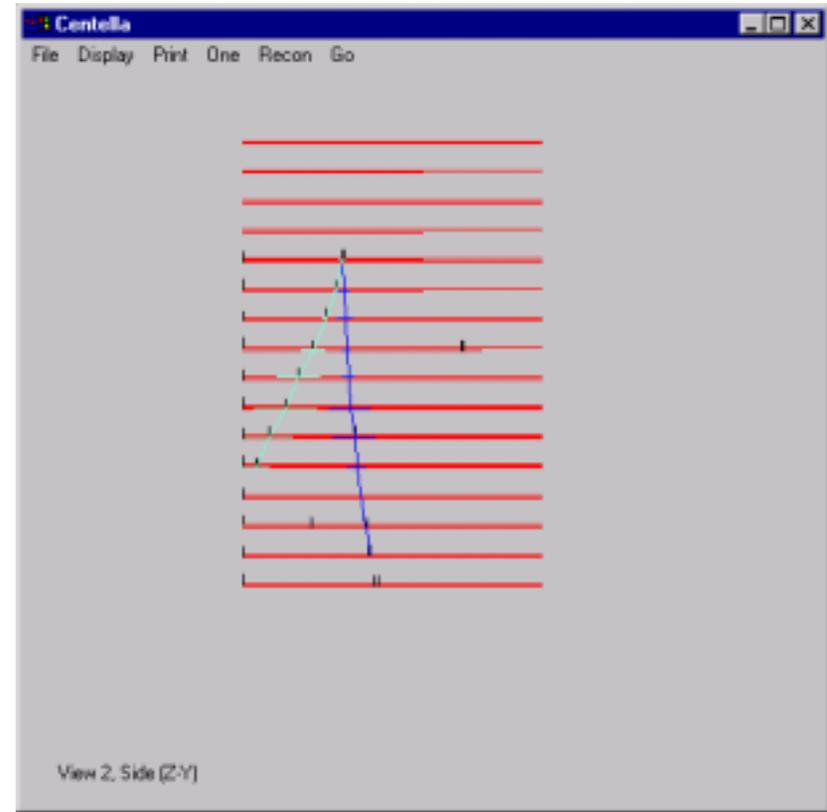
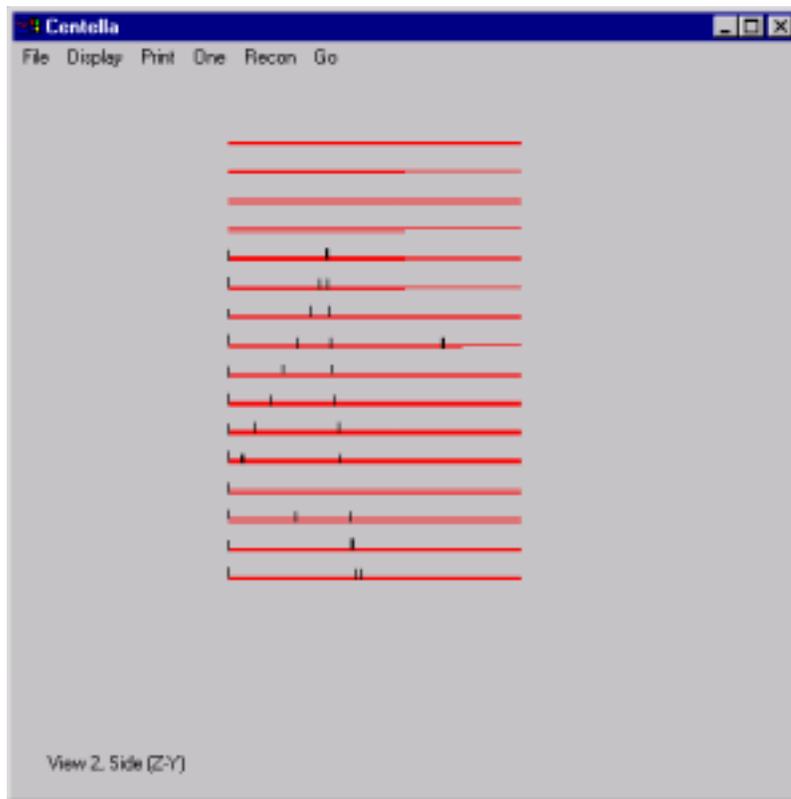


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Tracker reconstruction

Gamma Run (from control room: *light became matter*)

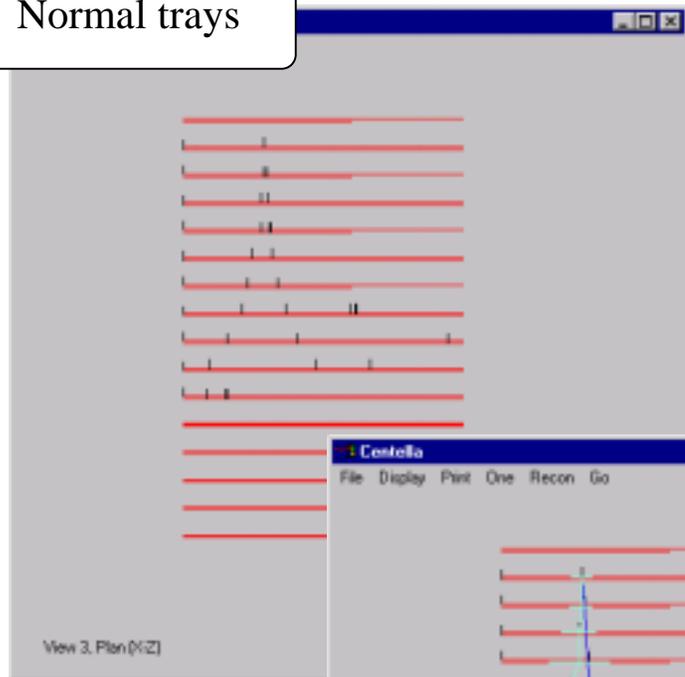


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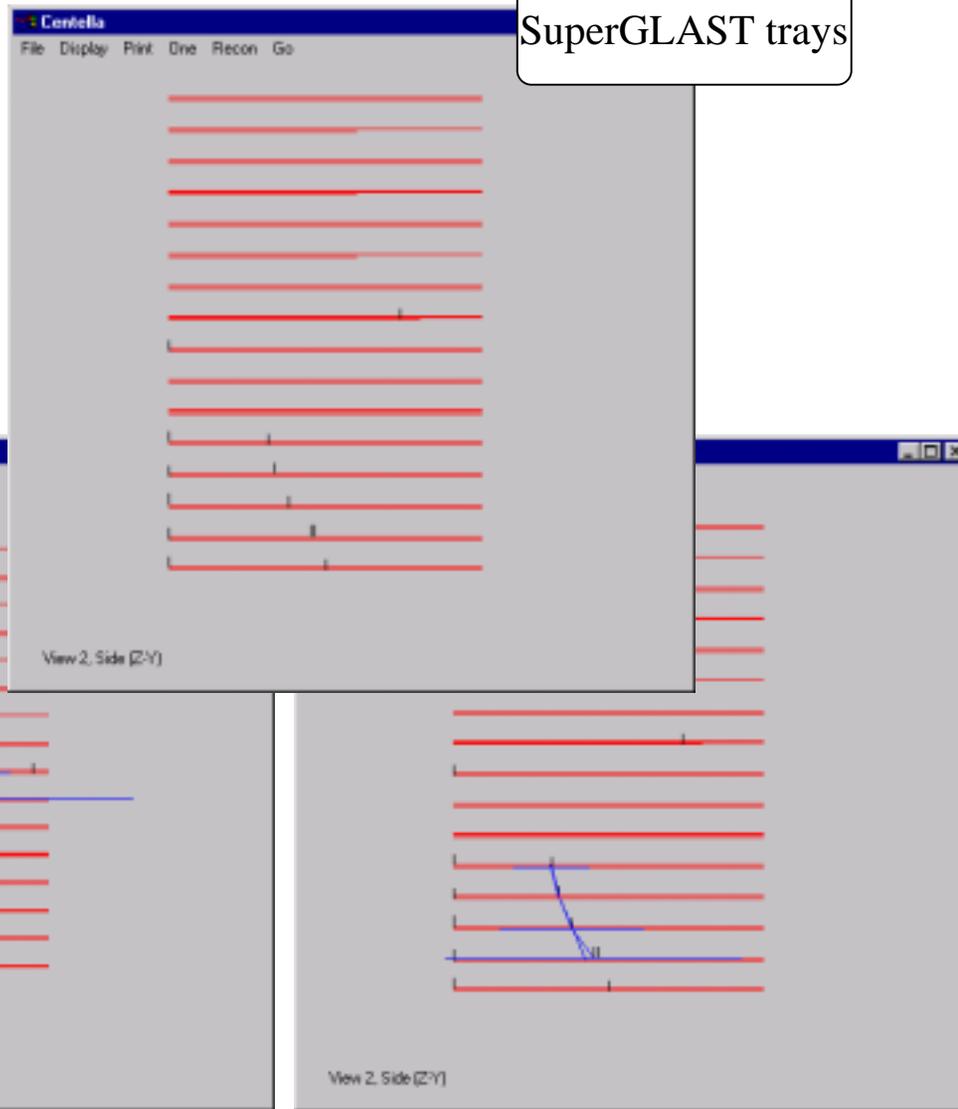
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Normal trays



SuperGLAST trays



Tracker reconstruction

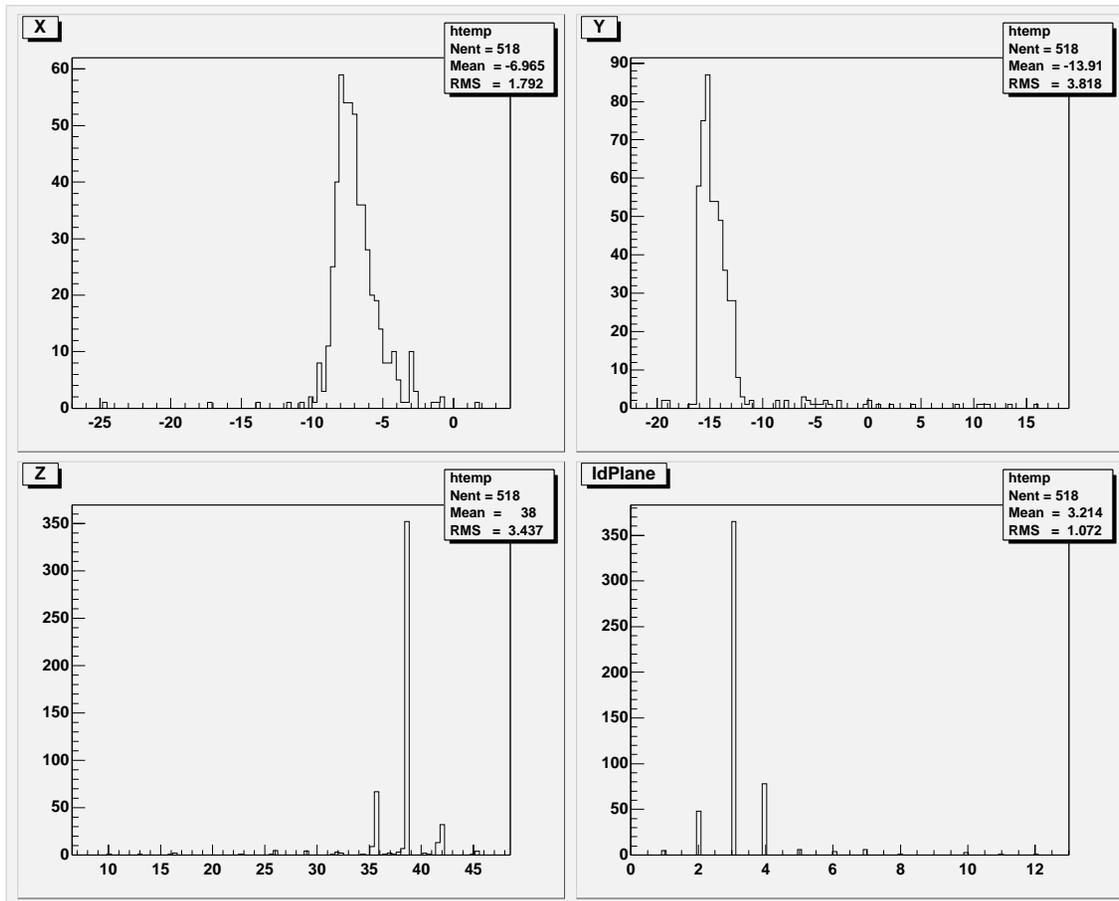
Gamma run

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Electron run

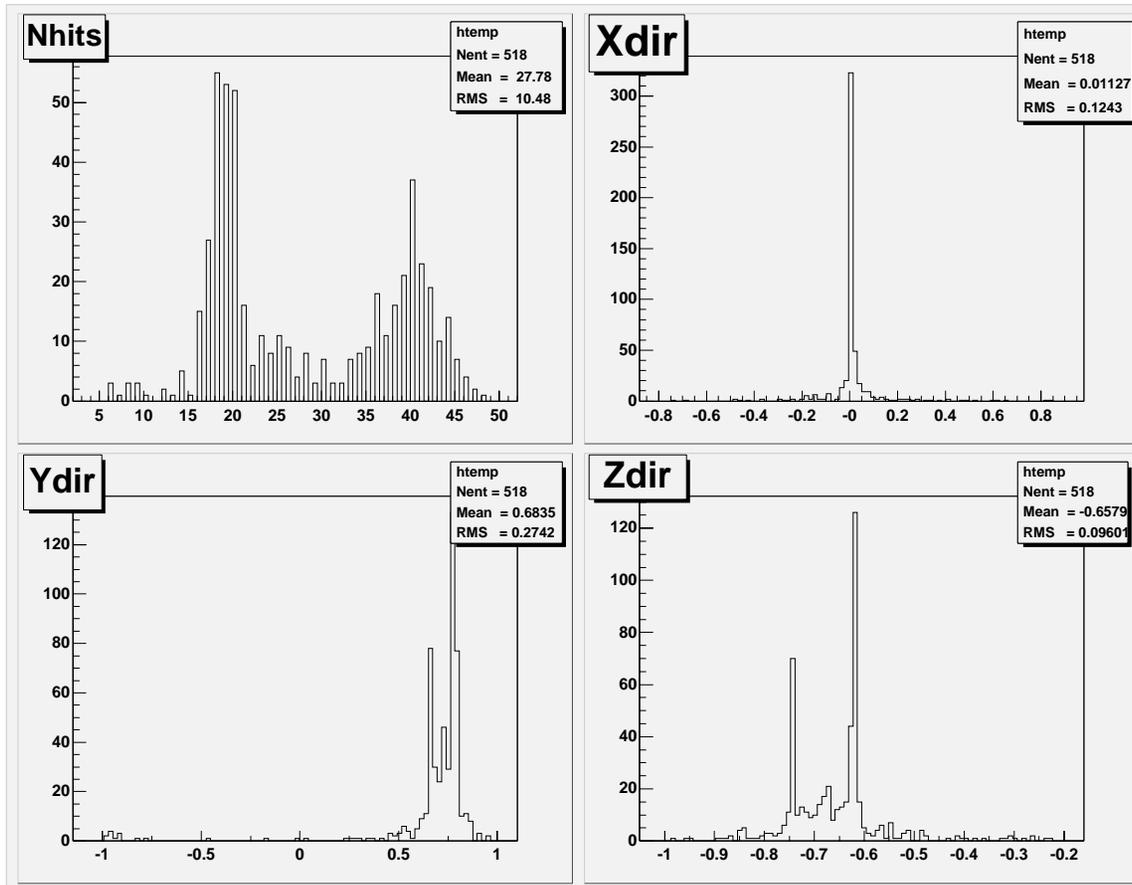


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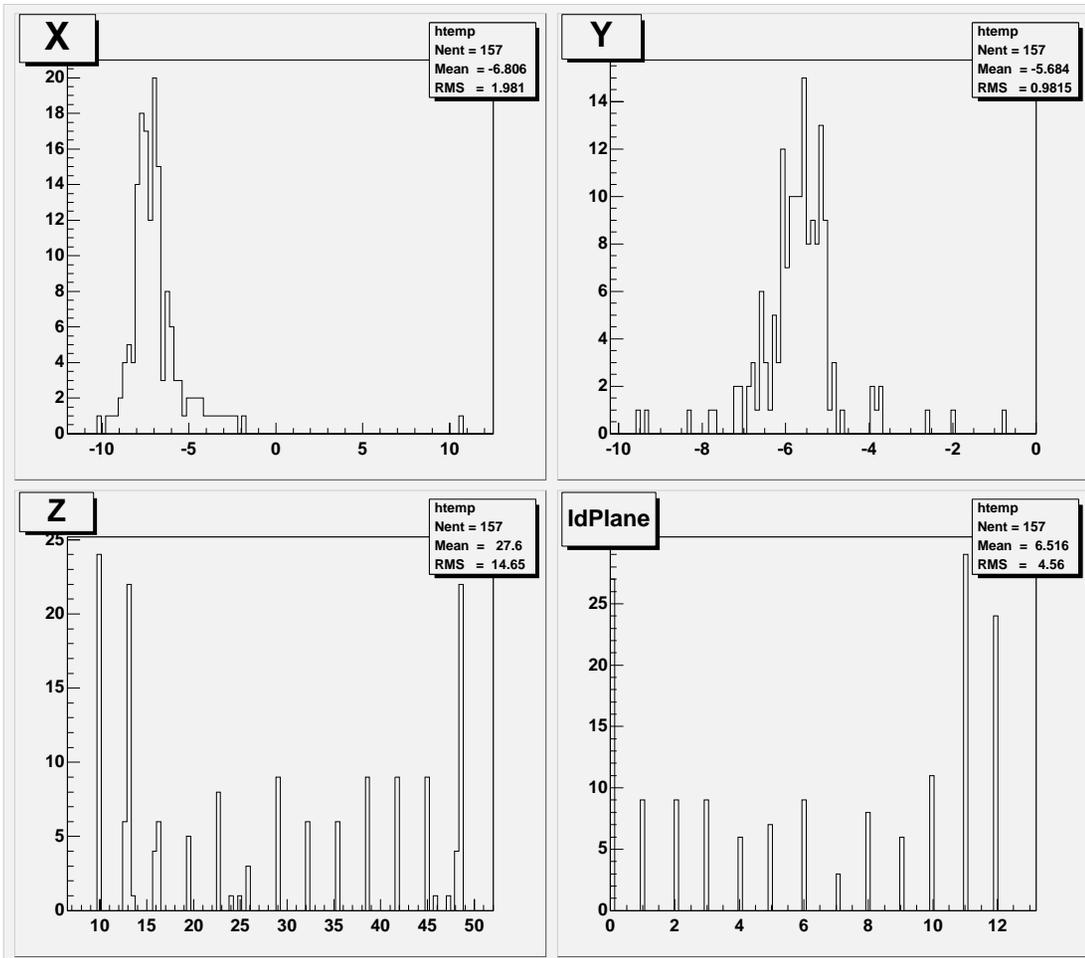


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