

Emulsion Track Follow-down

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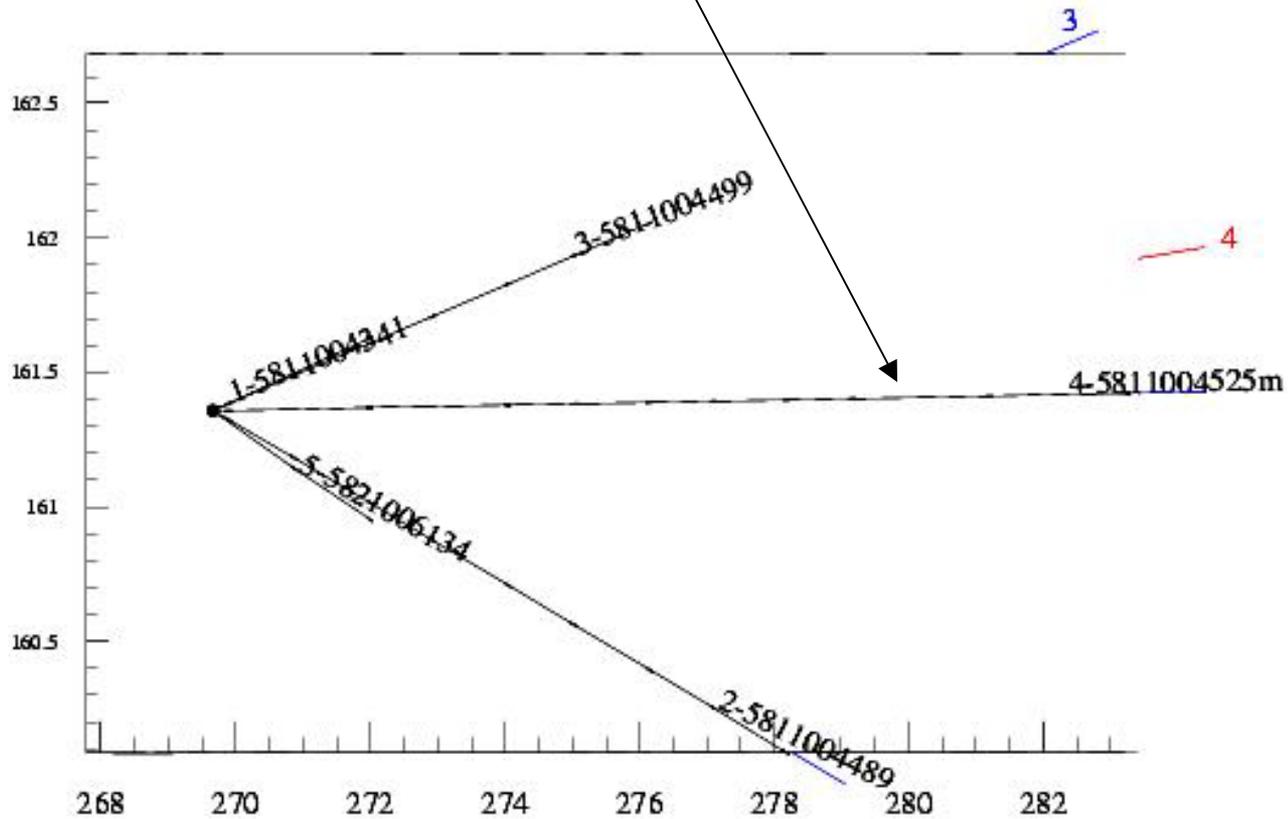
Goal

- Original goal was to study LS decays
 - Found many muon tracks in CC mu events are broken in the decay m-files
 - Find that 6/16 muon tracks are broken/kinked in the follow-down m-files
- A new set of interim goals
 - Understand the cause of broken tracks
 - How are broken tracks handled in Komatsu's momentum analysis?
 - Find the “missing” follow-down m-files

U View

trk	nhtnse	gnomvtx
1-5811004341	2	1
2-5811004489	9	1
3-5811004499	7	1
4-5811004525	14	-53.9
5-5821006134	2	1

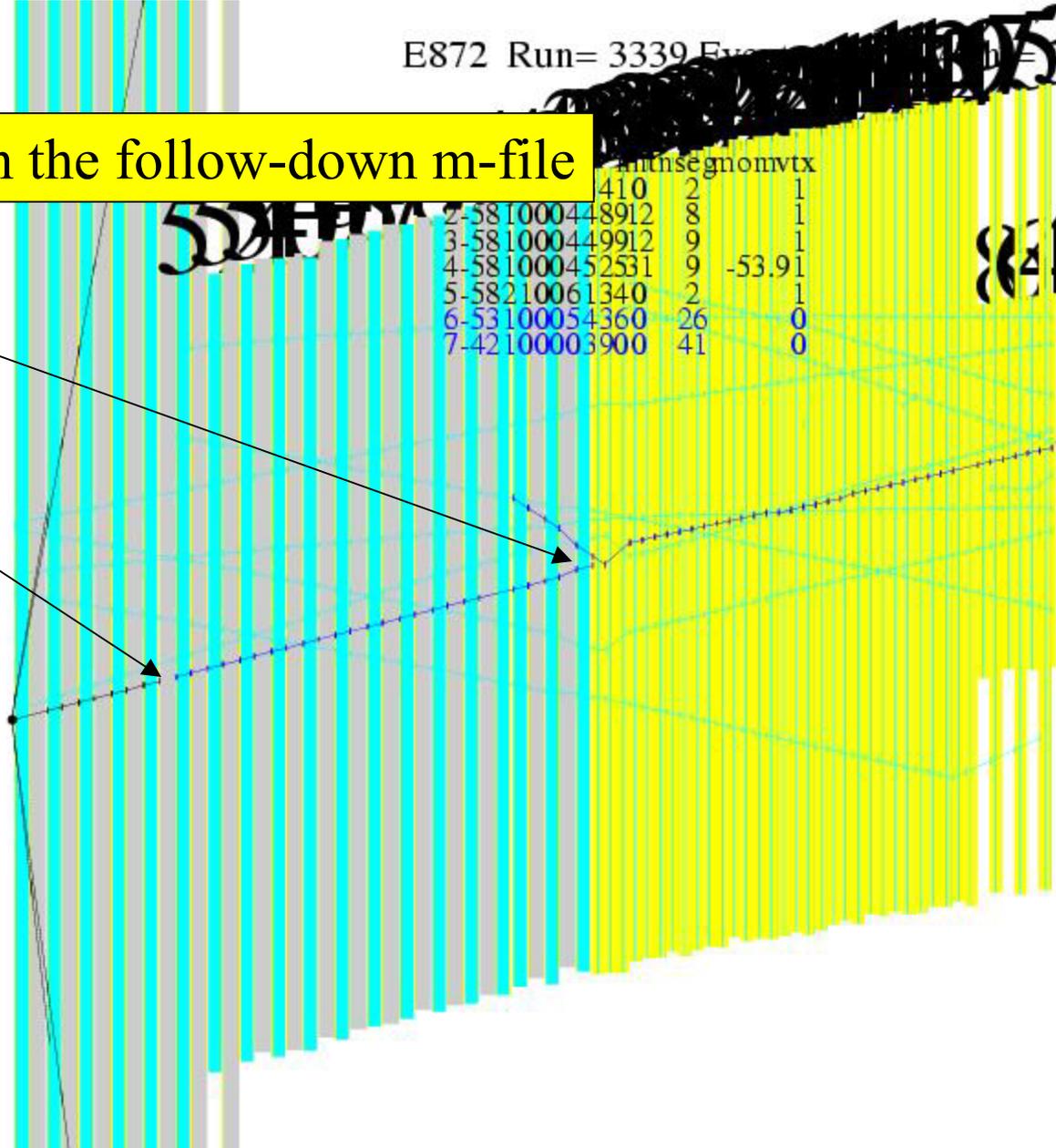
Muon track in the decay m-file



Muon track in the follow-down m-file

IP = 20 μm
 $\Delta\theta = .006$

IP = 0.9 μm
 $\Delta\theta = .004$



50000000

	hit	se	gnom	vtx
	410	2		1
2-581000448912	8			1
3-581000449912	9			1
4-581000452531	9	-53.91		
5-58210061340	2			1
6-53100054360	26			0
7-42100003900	41			0

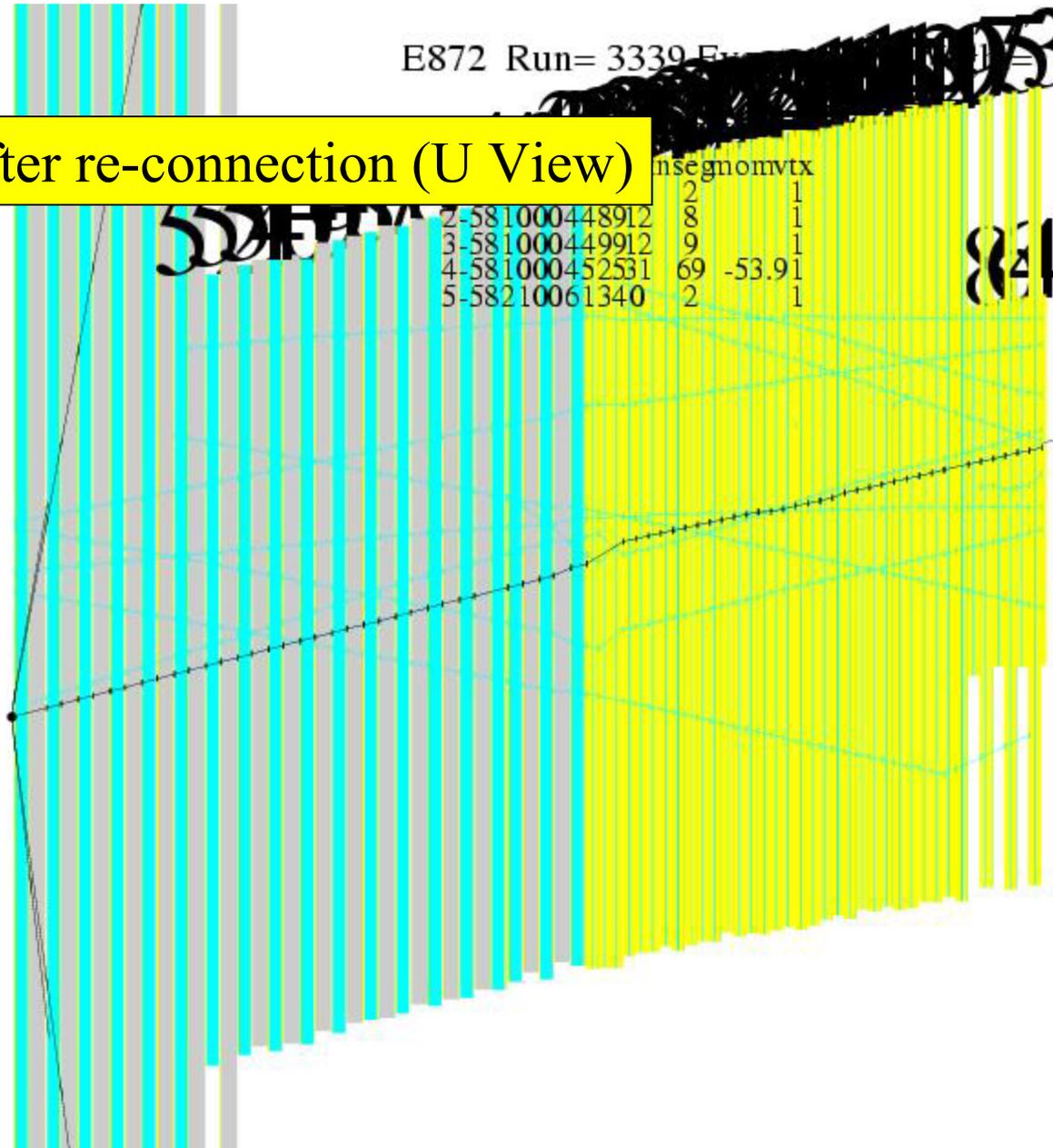
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Track Re-connection

- For each plate starting downstream of the input track
 - Fit the DS 3 segments
 - If $\chi^2 < 5$ use the re-fitted track parameters
 - Project the track to plate
 - Find segment closest to projected track ($<20 \mu\text{m}$, $\delta\theta < .017$)
 - Append segment to track
 - Go to next plate

E872 Run= 3339 E= 100.0 GeV 1.0

Muon track after re-connection (U View)



	in	seg	nom	vtx
2-581000448912	2			1
3-581000449912	8			1
4-581000452531	9			1
5-58210061340	69		-53.91	1

E872 Run= 3339 Event= 4355 Wght= 1.0

Muon track after re-connection (V View)

