μCC Interactions

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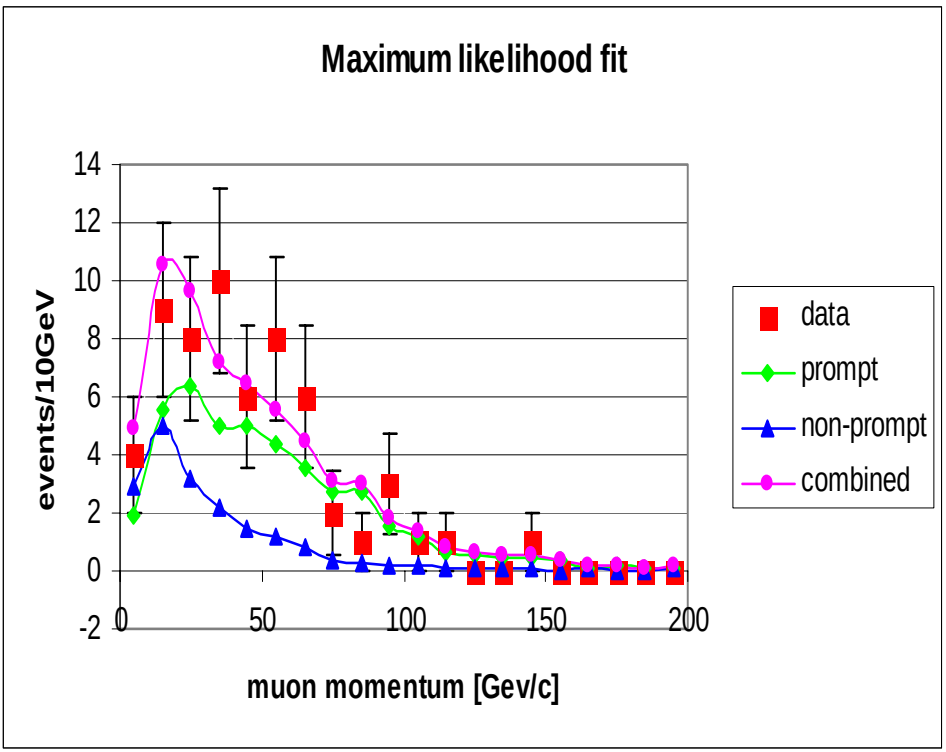
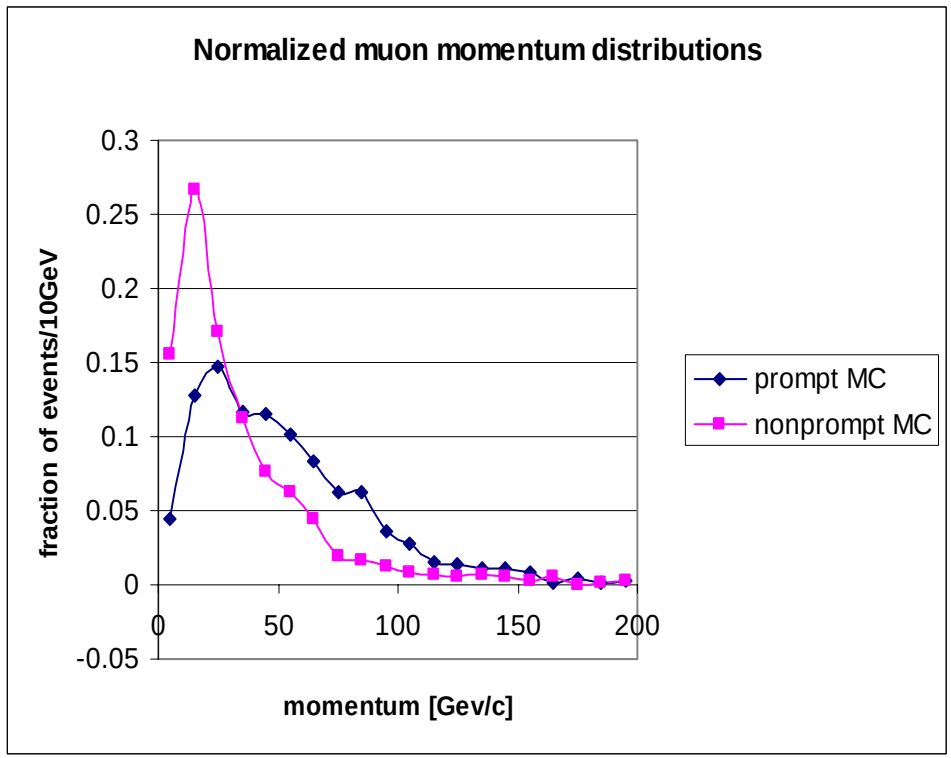
E872 Collaboration Meeting 07/07/00

Event Sample

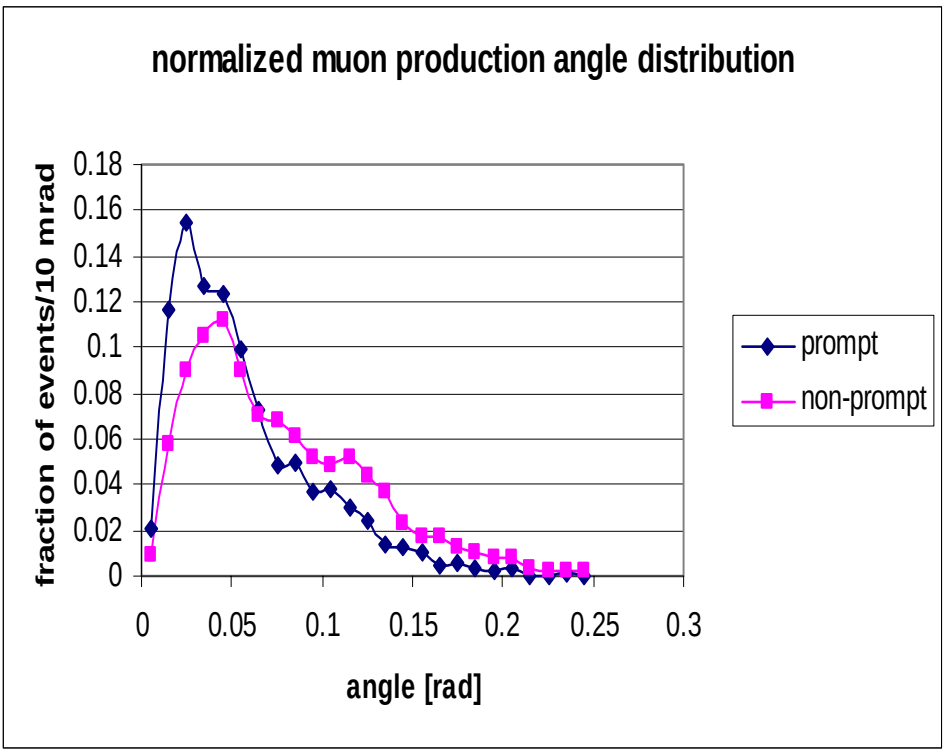
- 261 located emulsion vertices
- 65 muon events after cuts
- 38 events with KSY
- 30 events with KSX

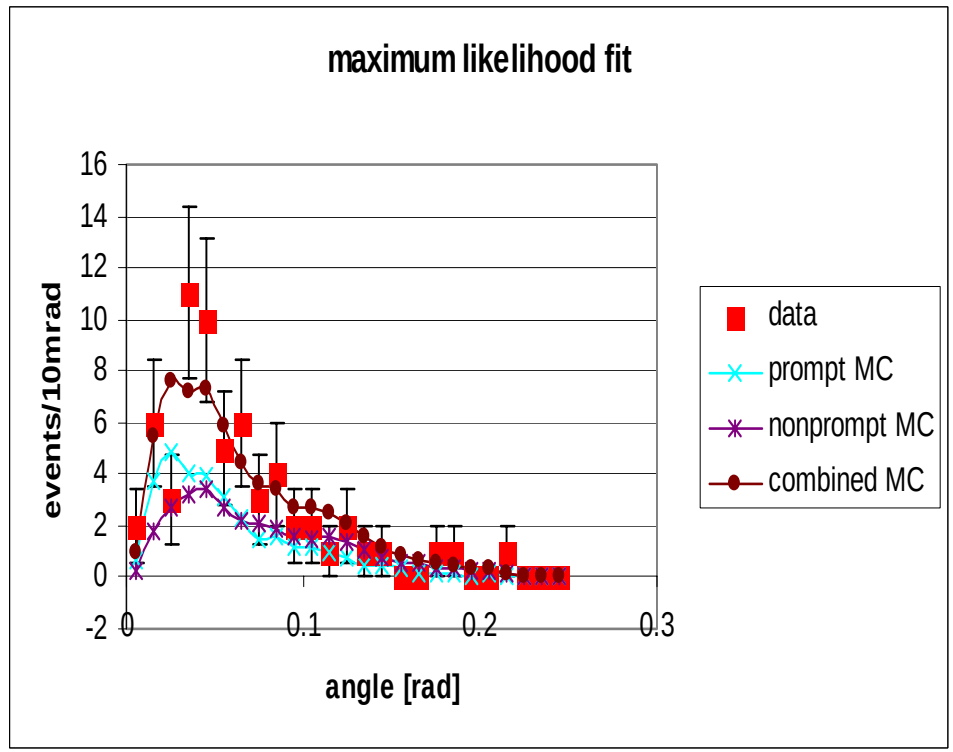
Momentum


Maximum likelihood fit
events/10GeV
14
12
10
8
6
4
2
0
-2
0
50
100
150
200
muon momentum [Gev/c]
data
prompt
non-prompt
combined

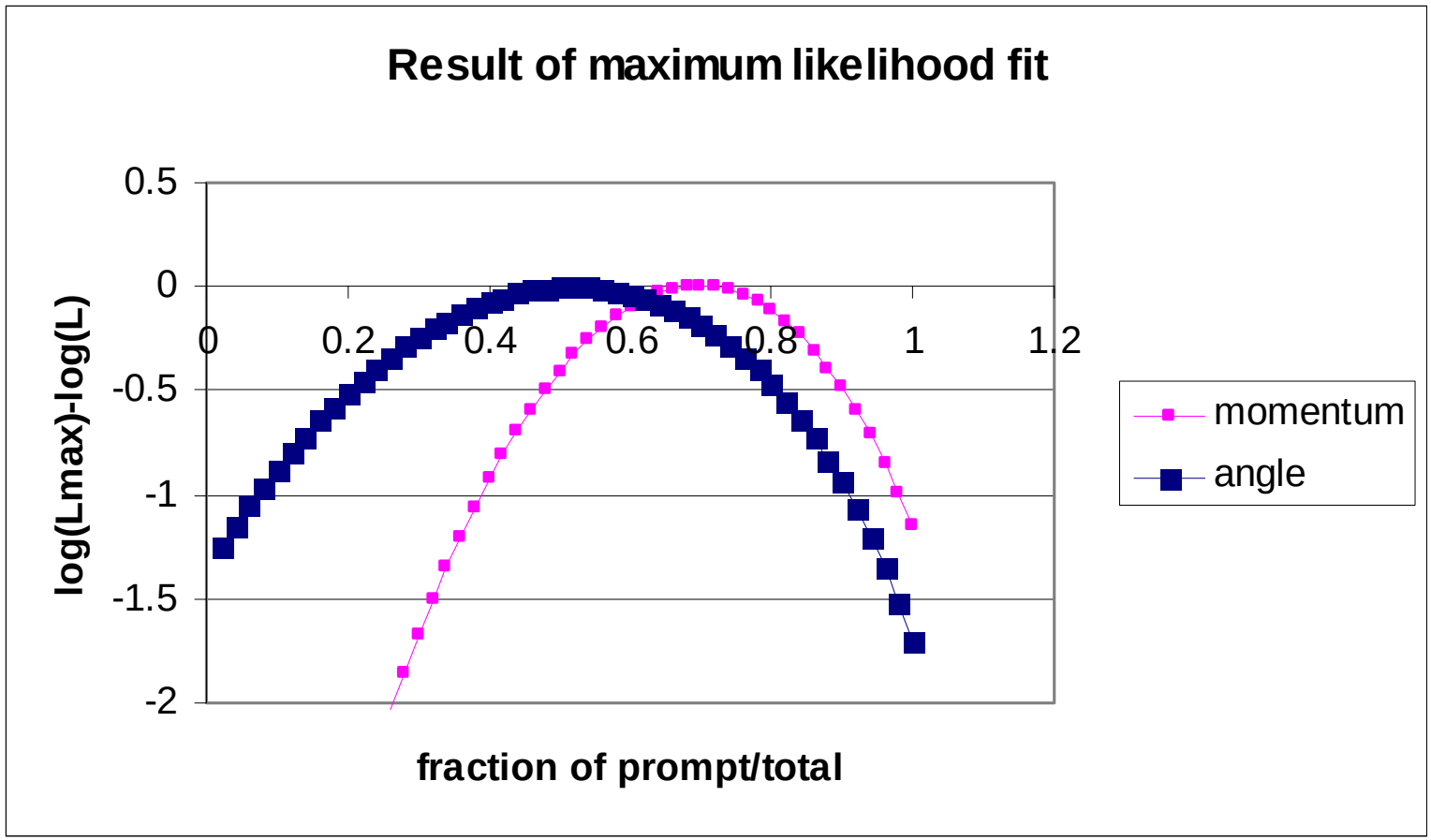

Normalized muon momentum distributions
fraction of events/10GeV
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
0
50
100
150
200
momentum [Gev/c]
prompt MC
nonprompt MC

Production Angle



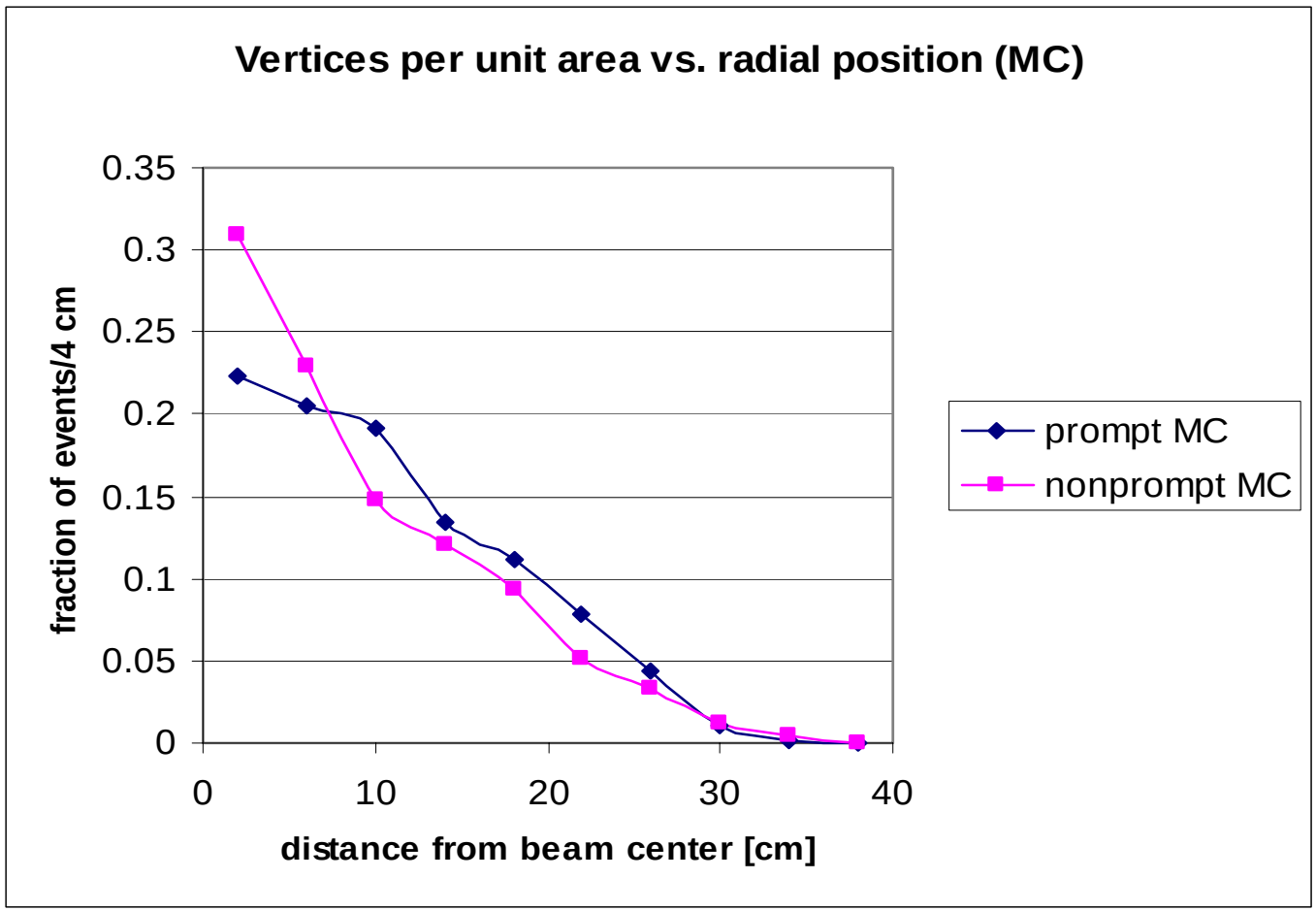


Result

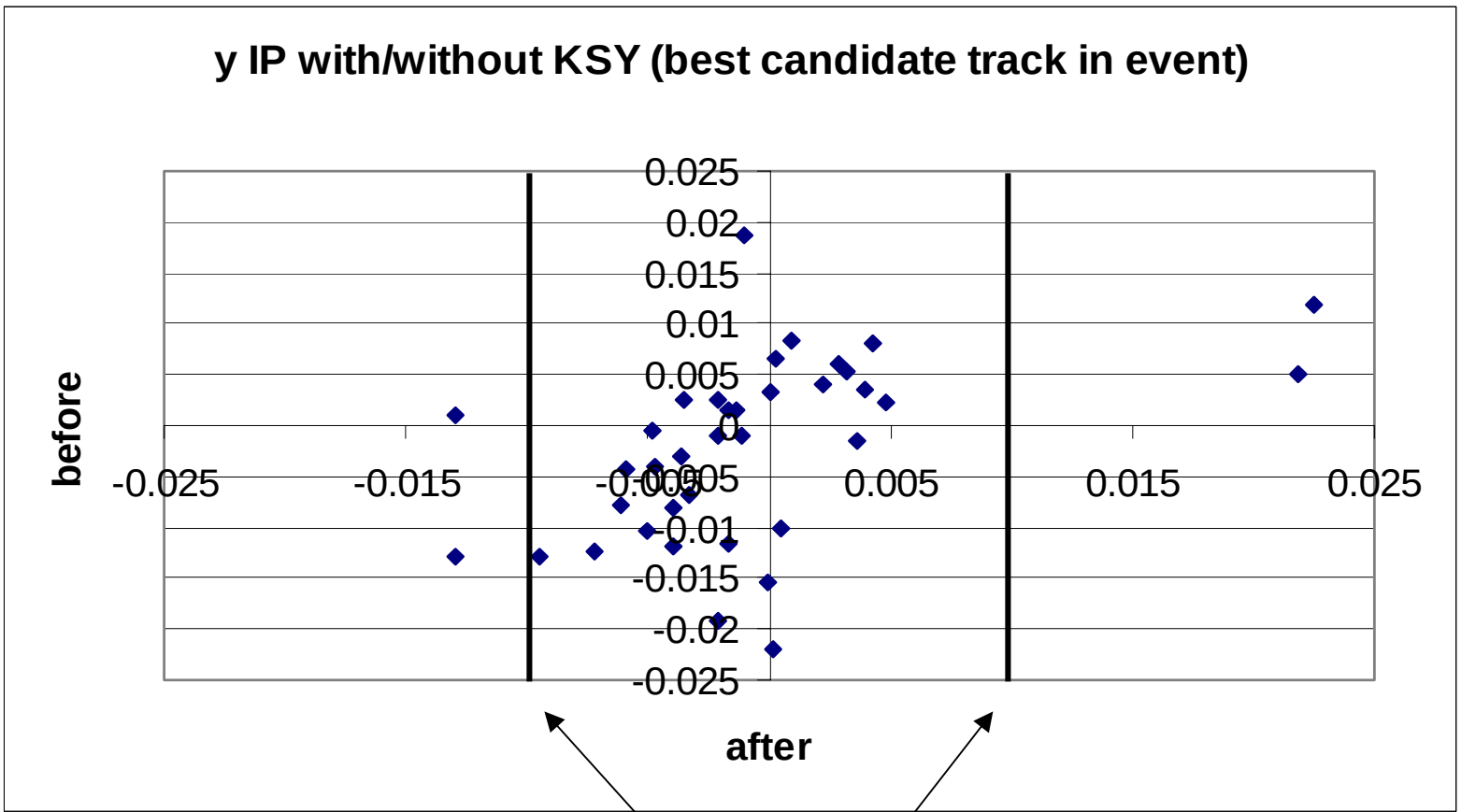


Prompt fraction: 70% ± 20% (momentum fit)
52% ±30% (angle fit)

Radial vertex position MC (no fiducial cuts)

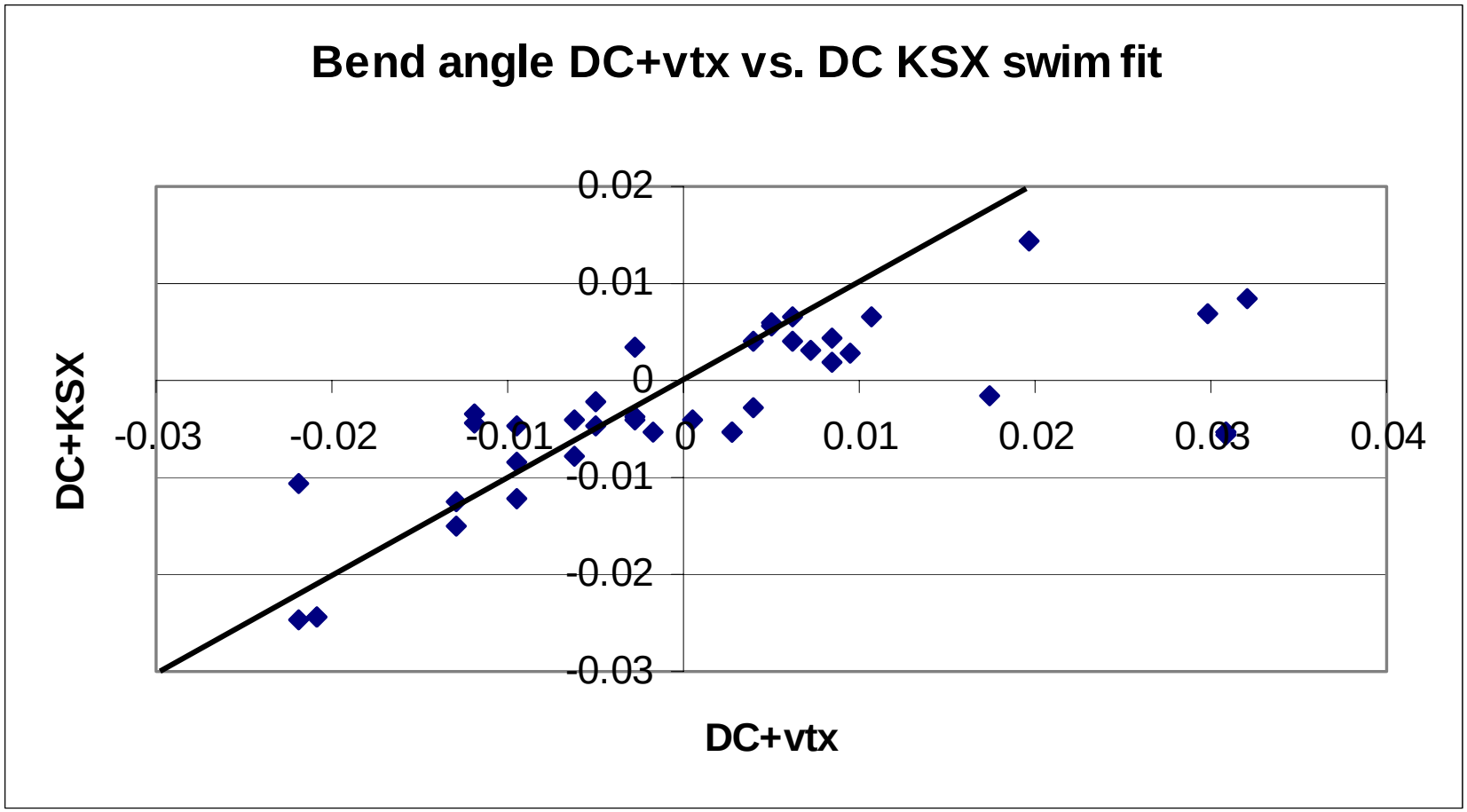


Effect of KSY chamber

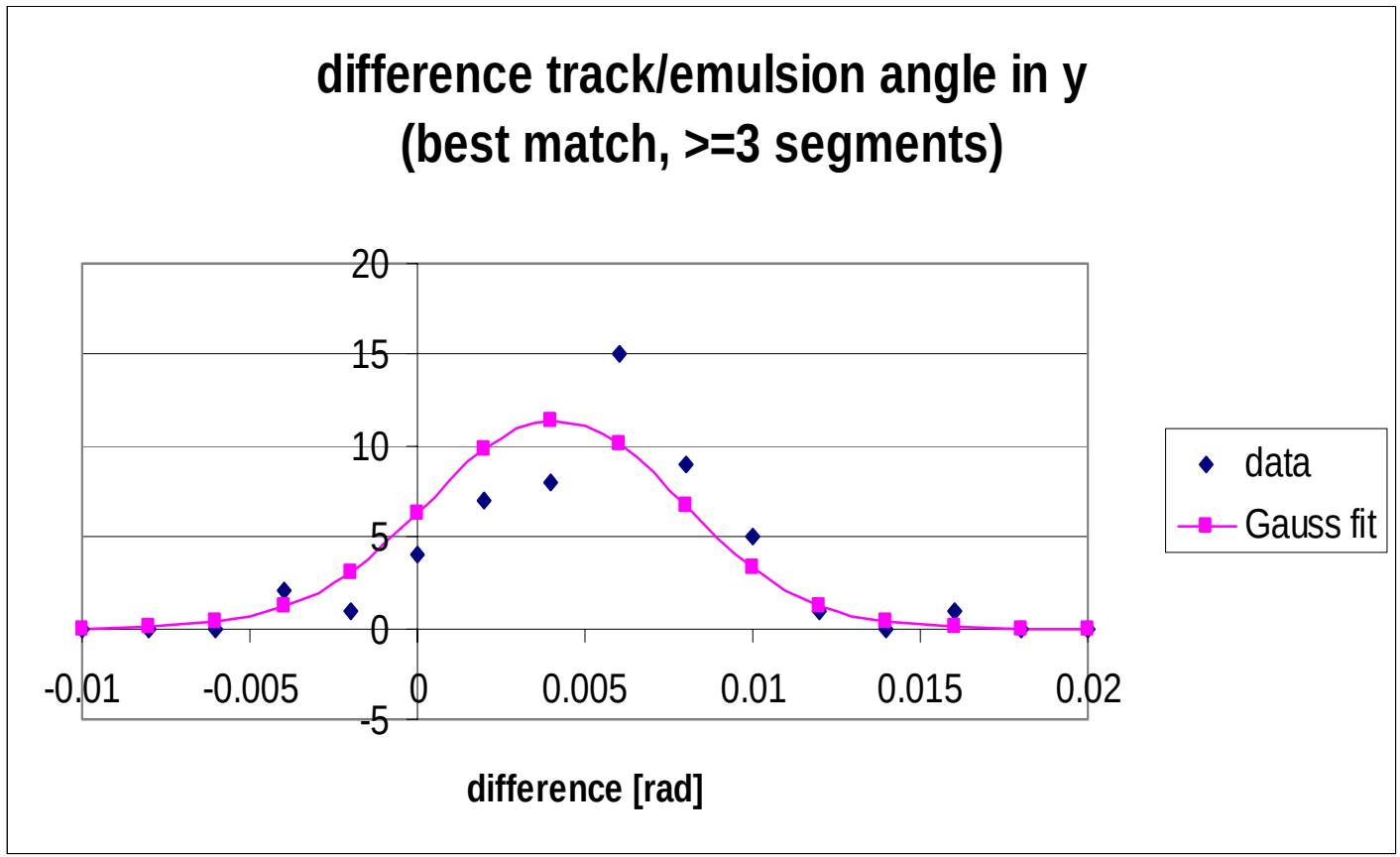


1 cm cut

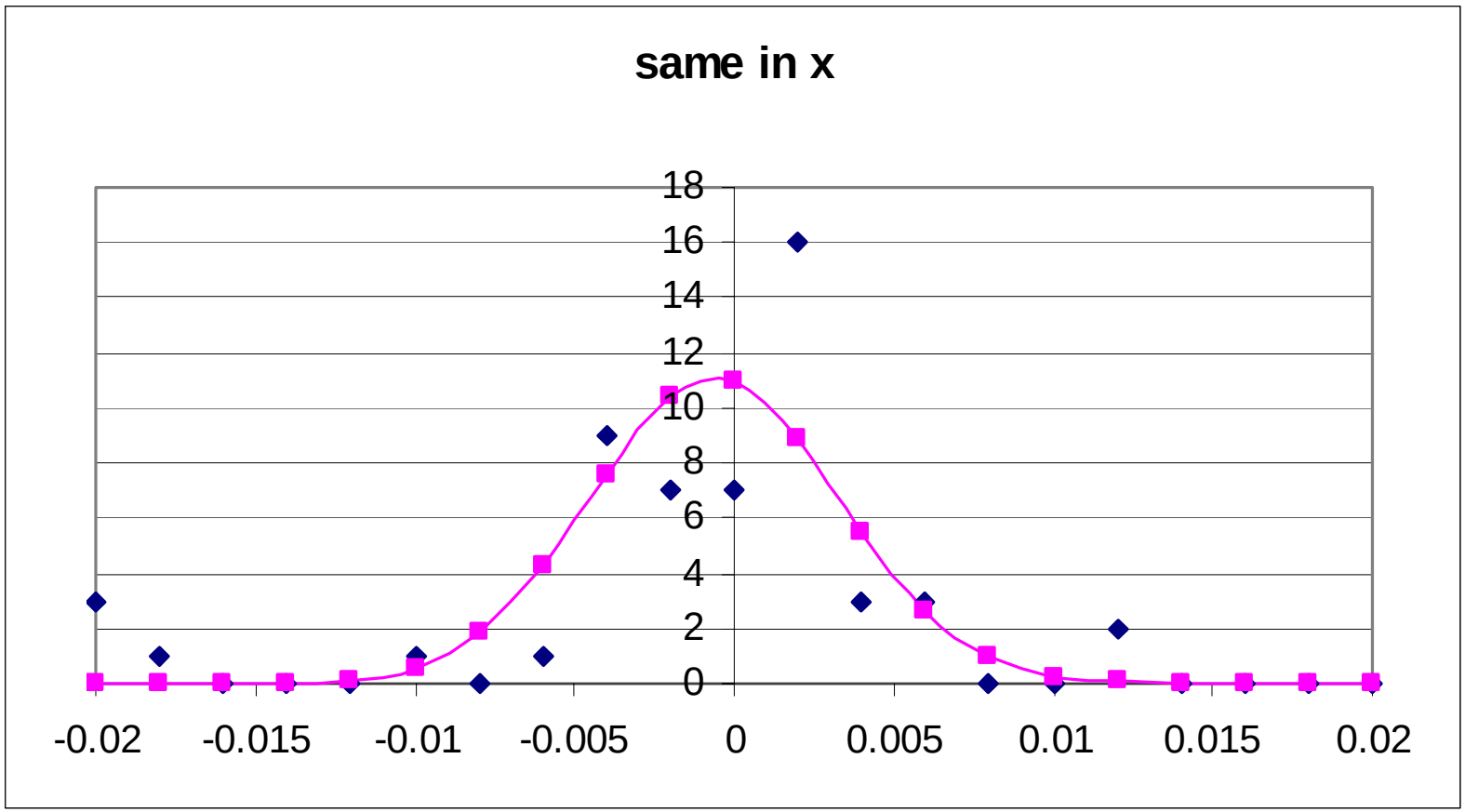
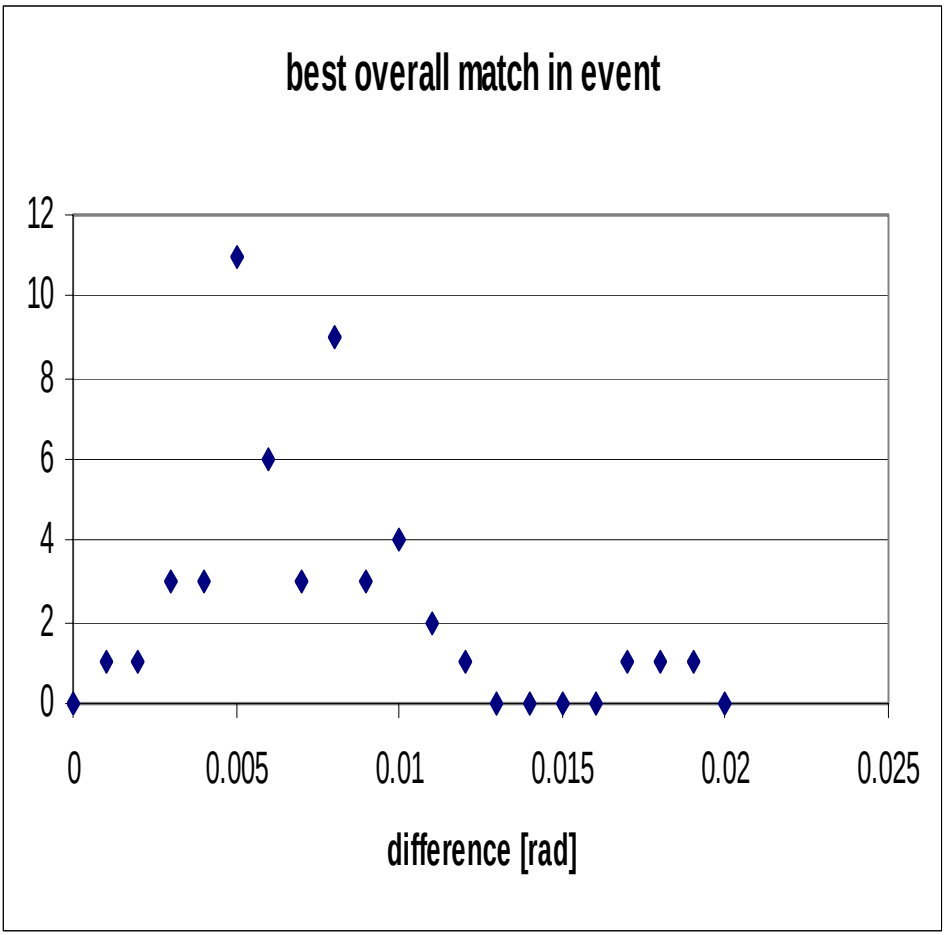
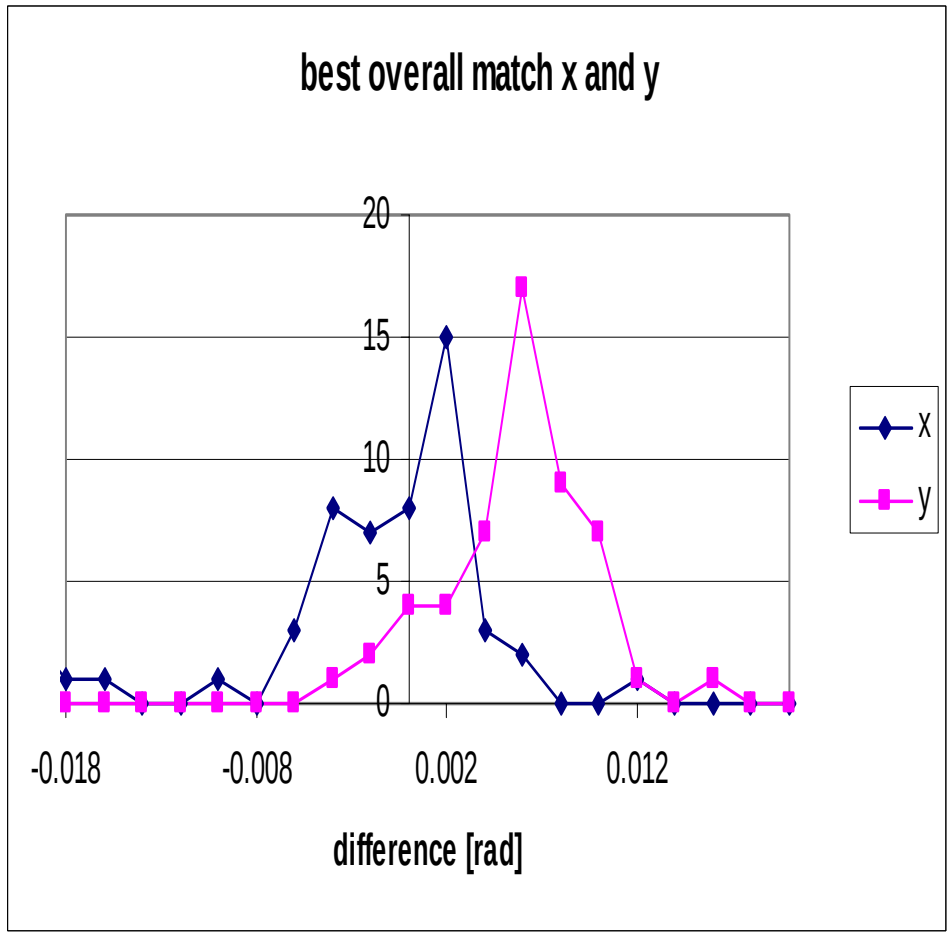
Effect of KSX chamber



Emulsion track matching (y)



Same in x


same in x
18
16
14
12
10
8
6
4
2
0
-0.02
-0.015
-0.01
-0.005
0
0.005
0.01
0.015
0.02

Total angle difference