

MIPP Software Meeting  
02/27/2009



1

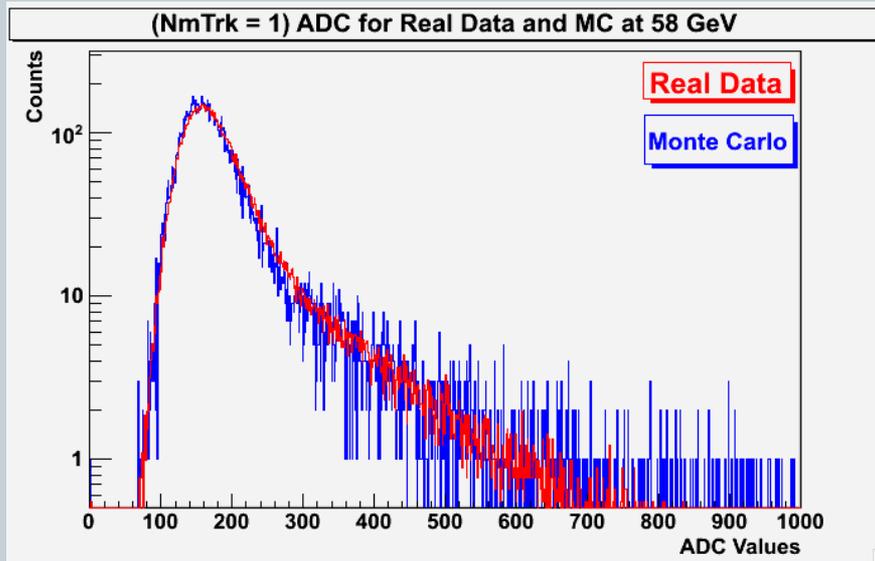
# ScInteraction Trigger Digitizer

**YUSUF OGUZHAN GUNAYDIN**  
**UNIVERSITY OF IOWA**  
**DEPARTMENT OF PHYSICS &  
ASTRONOMY**

# ScintDigitizer Performance

2

- 58 GeV energy all thin targets
- Single tracks cut
- Good agreements



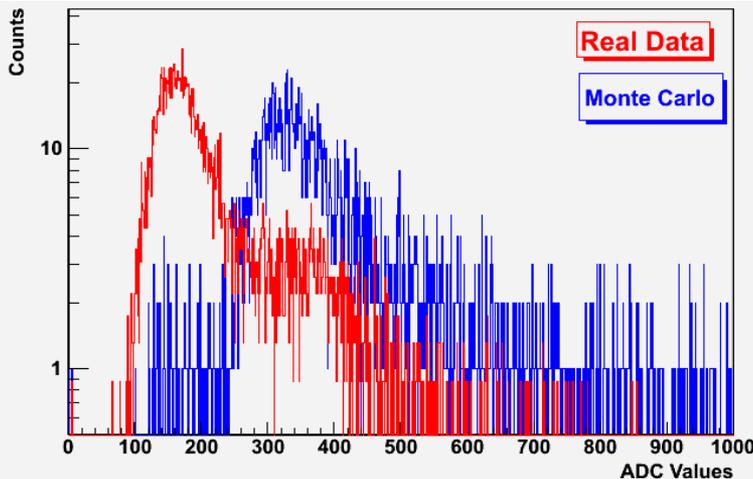
# ScintDigitizer Performance

3

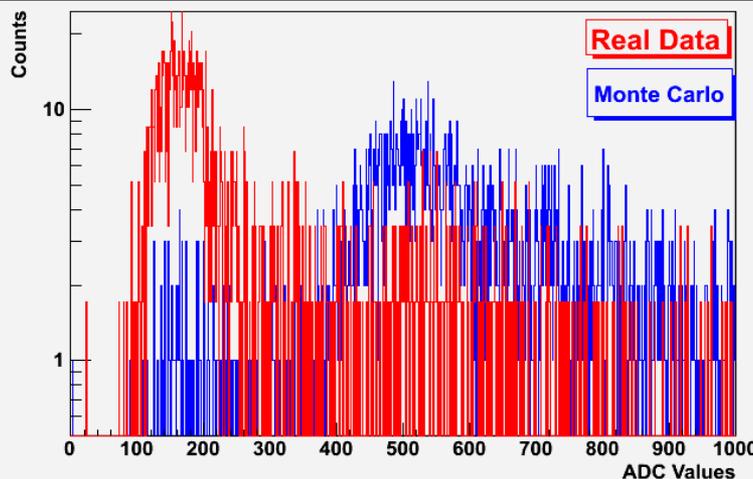
58 GeV energy all thin targets

- Two tracks cut on the upper left
- Three tracks cut on the bottom left
- Not in a good agreement
- The reason could be track position resolution for scintillator.
- ScintDigi may not be to blame.

(NmTrk = 2) ADC for Real Data and MC at 58 GeV



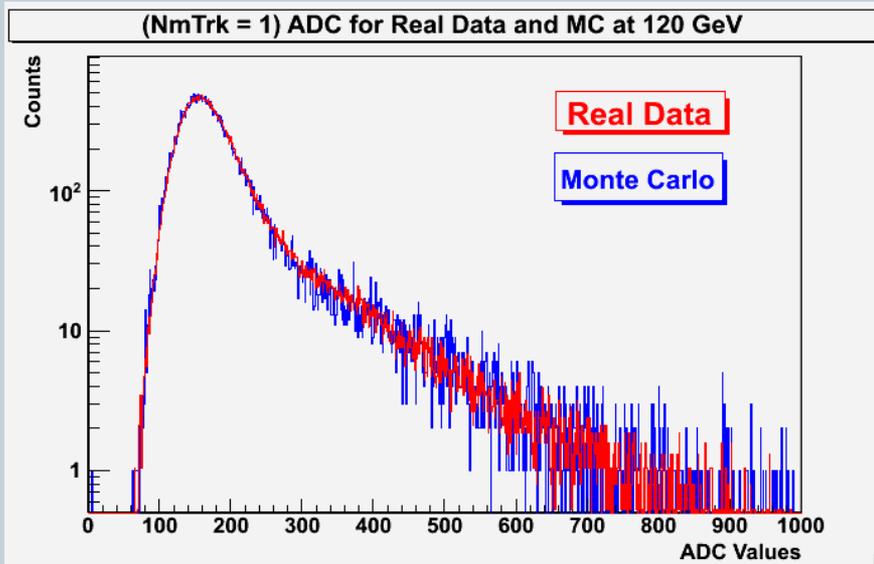
(NmTrk = 3) ADC for Real Data and MC at 58 GeV



# ScintDigitizer Performance

4

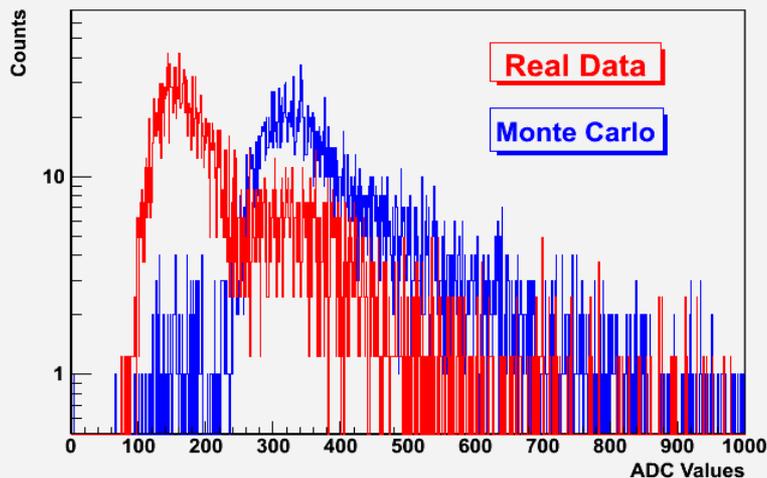
- 120 GeV all thin targets
- Single track cut
- Good agreement



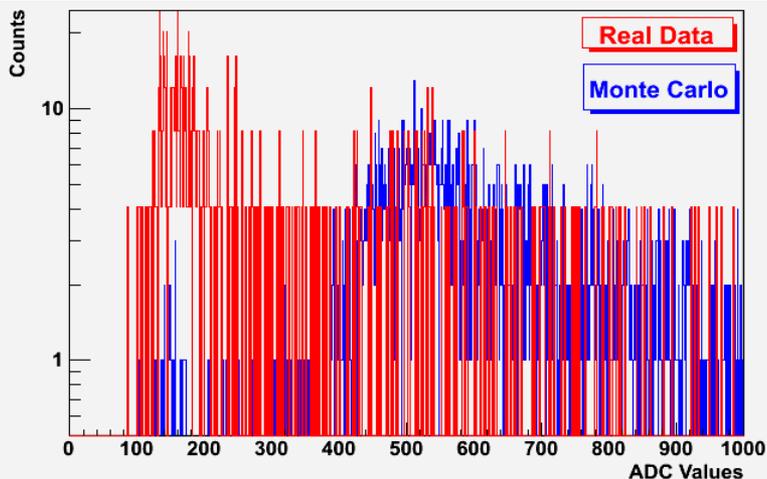
# ScintDigitizer Performance

5

(NmTrk = 2) ADC for Real Data and MC at 120 GeV



(NmTrk = 3) ADC for Real Data and MC at 120 GeV



- 120 GeV energy all thin targets
- Two tracks cut on the upper left
- Three tracks cut on the bottom left
- Not in a good agreement
- Track position should be checked to get better agreement.

# To do

6

- **Trigger Efficiency Study**
  - Find out ADC threshold value from data that let us simulate trigger in MC.
  - Count number of events for given number of tracks
  - Count number of events for given number of tracks with Scint ADC value which is above the threshold
  - Get the ratio of last two steps. This is Scint trigger efficiency as a function of number of tracks.