Status of MAPS ECAL Intrinsic Response Simulation

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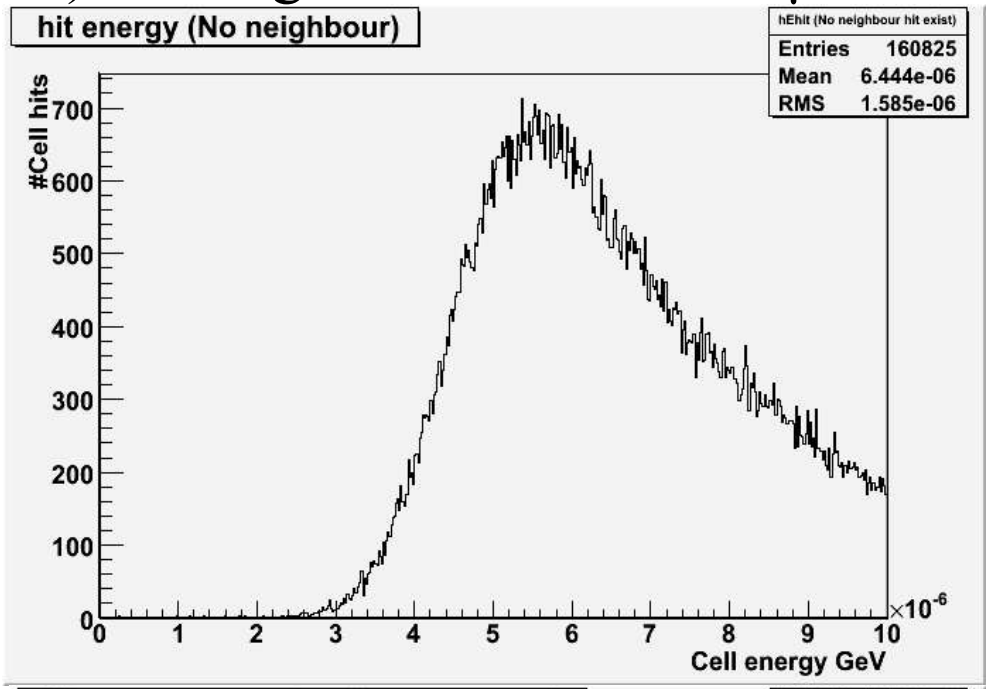
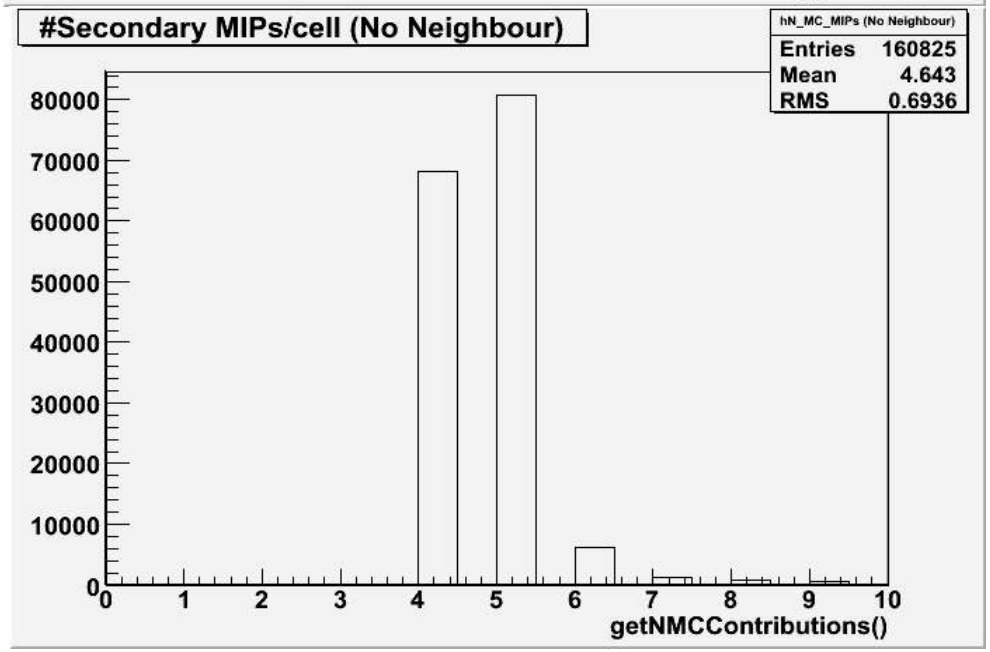
Outlines

- 20 GeV muon response with 500μm, 25μm, 15μm and 5μm Si sensitive thickness

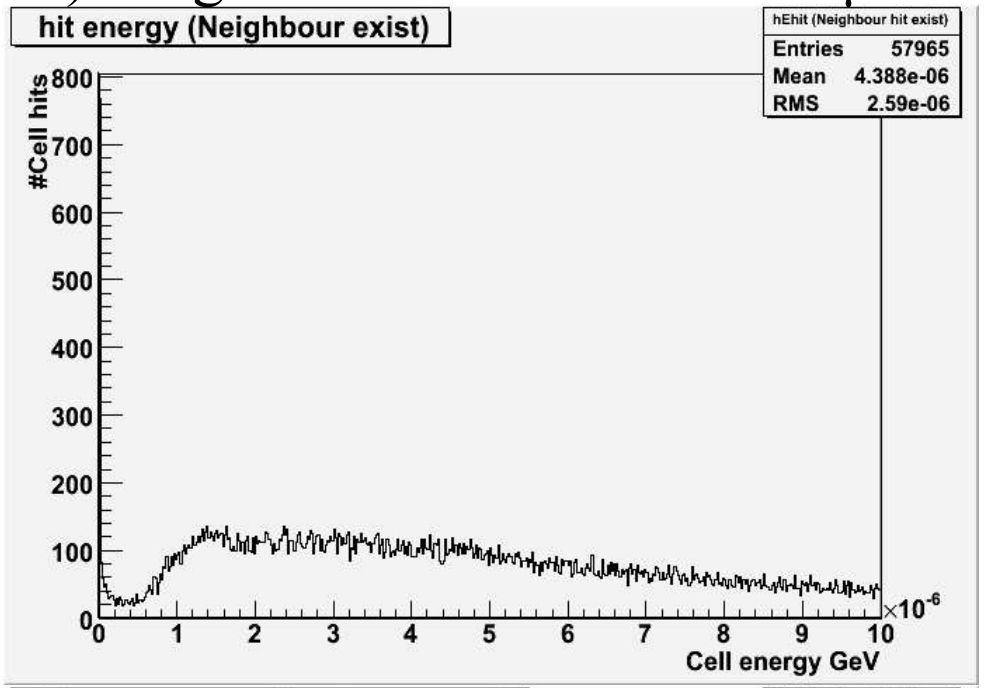
25μm Si sensitive thickness (20GeV muon, 50x50μm²)

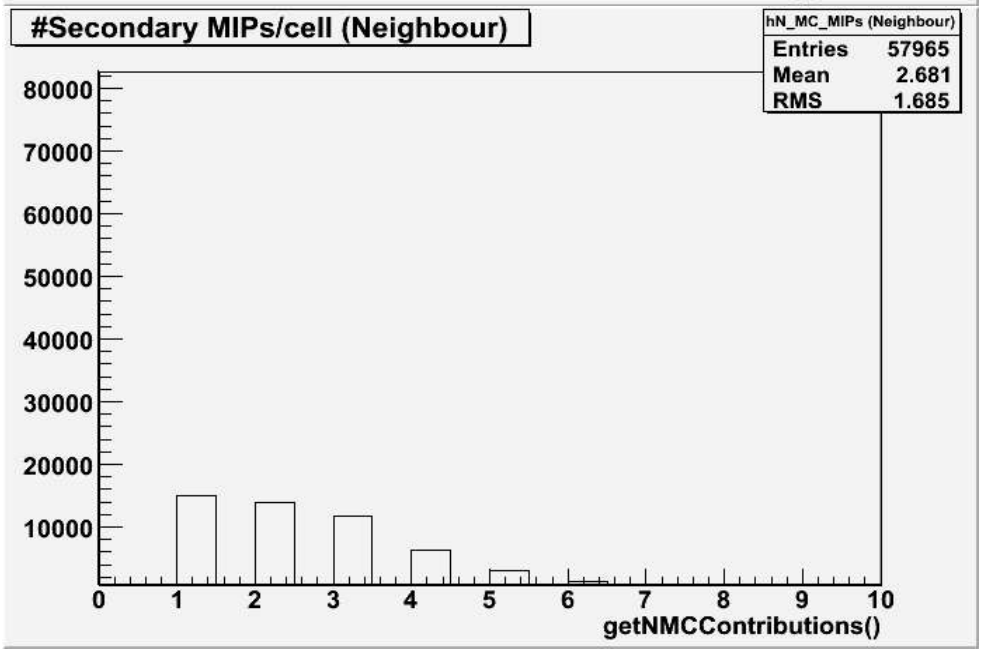
1) No neighbour hit within 80μm





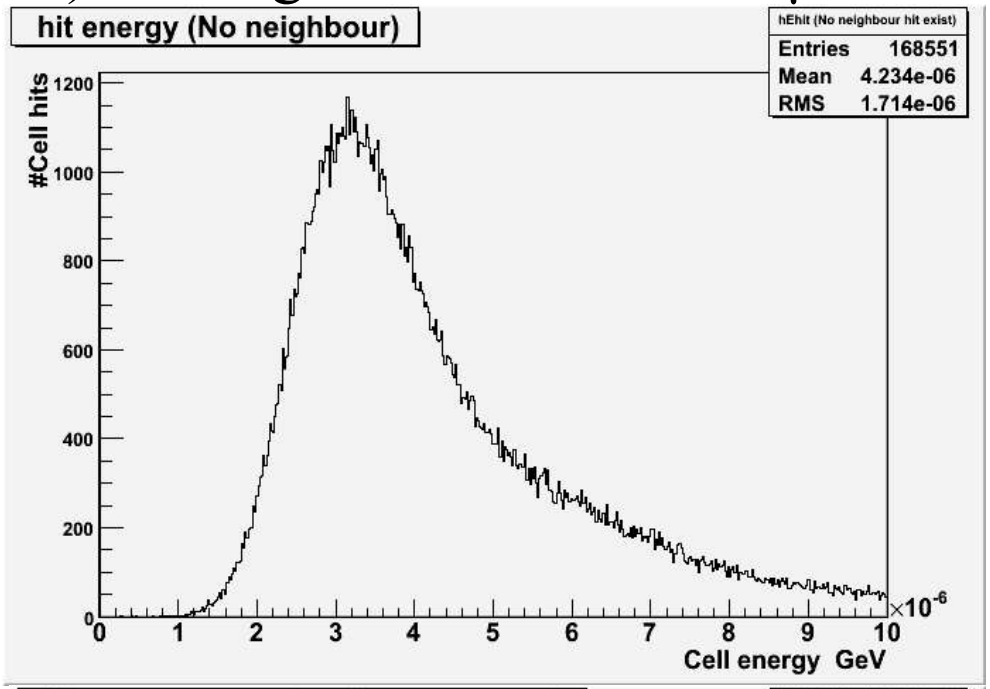
2) Neighbour hit exist within 80μm

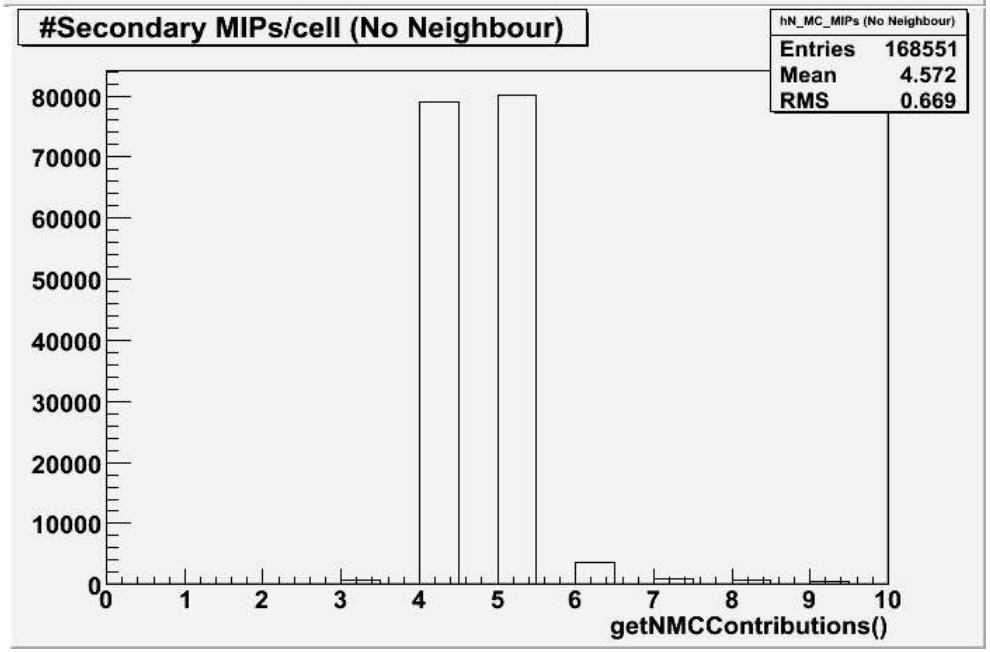




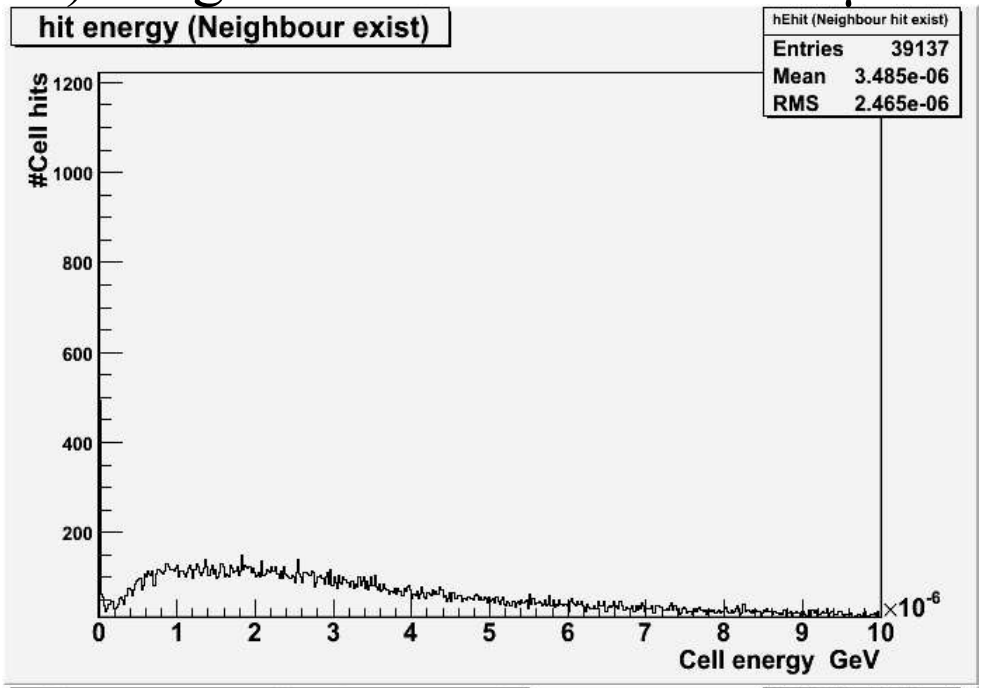
15μm Si sensitive thickness (20GeV muon, 50x50μm²)

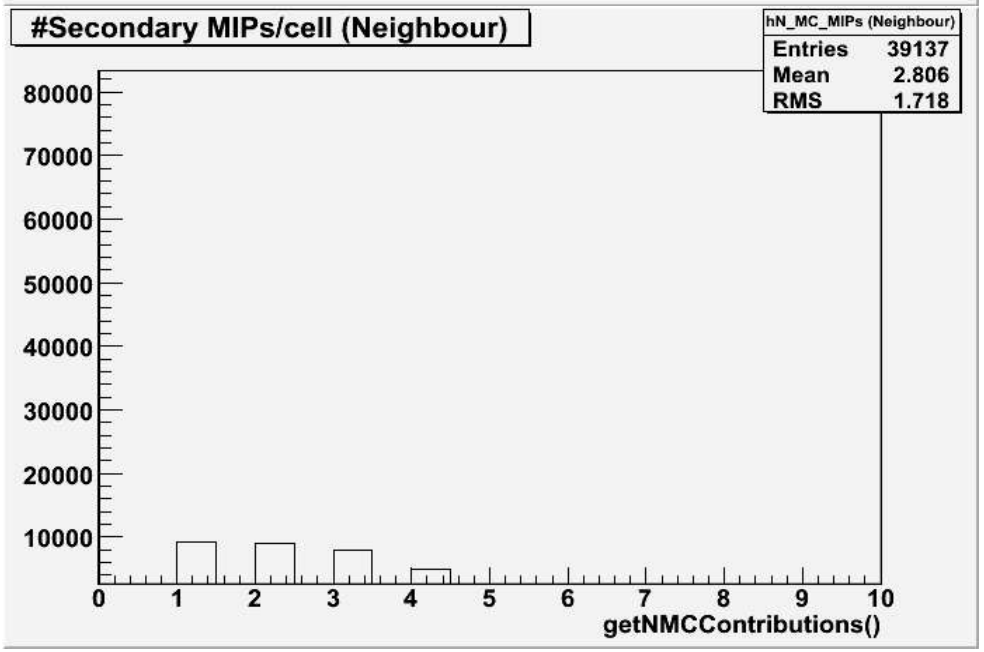
1) No neighbour hit within 80μm





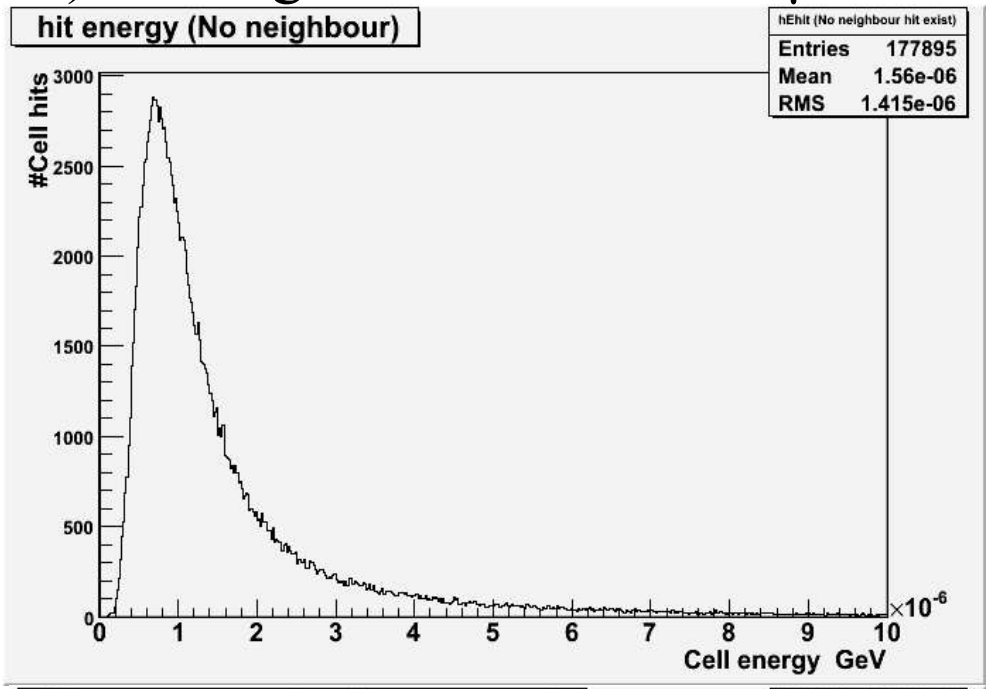
2) Neighbour hit exist within 80μm

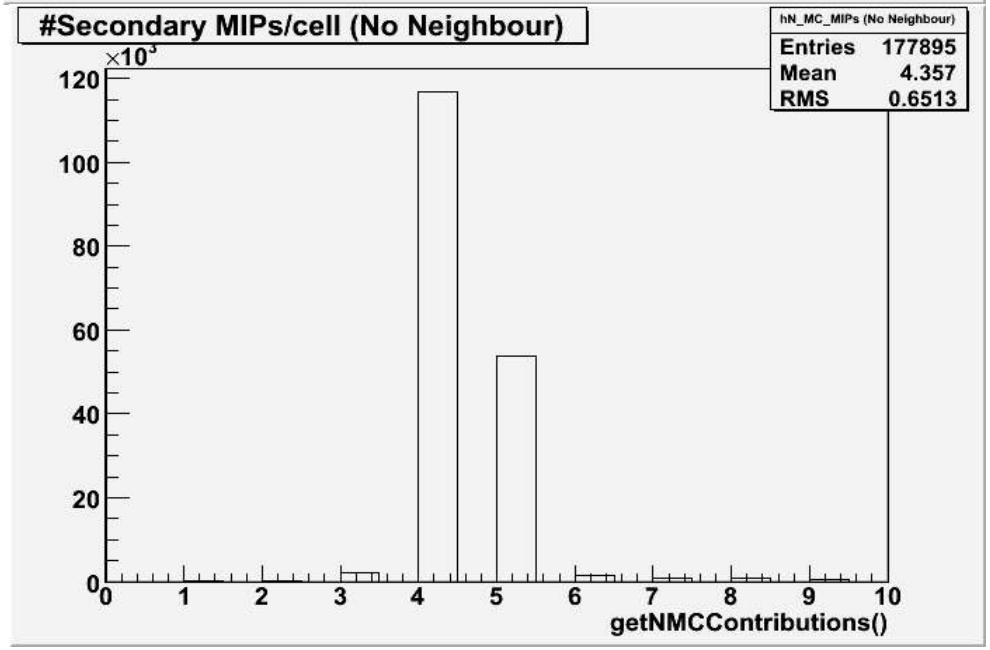




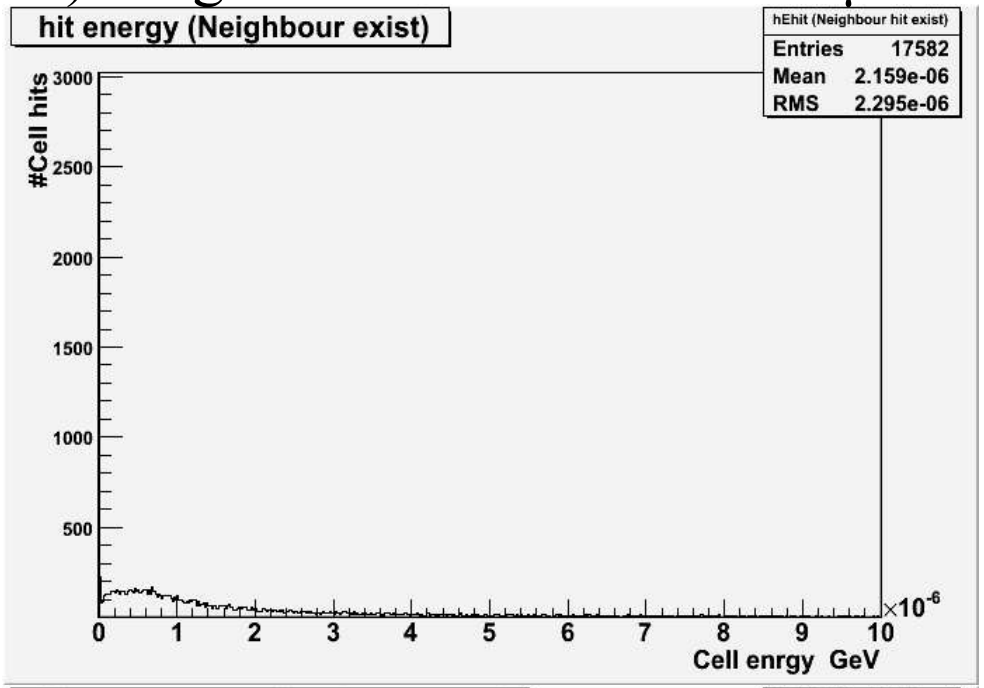
5μm Si sensitive thickness (20GeV muon, 50x50μm²)

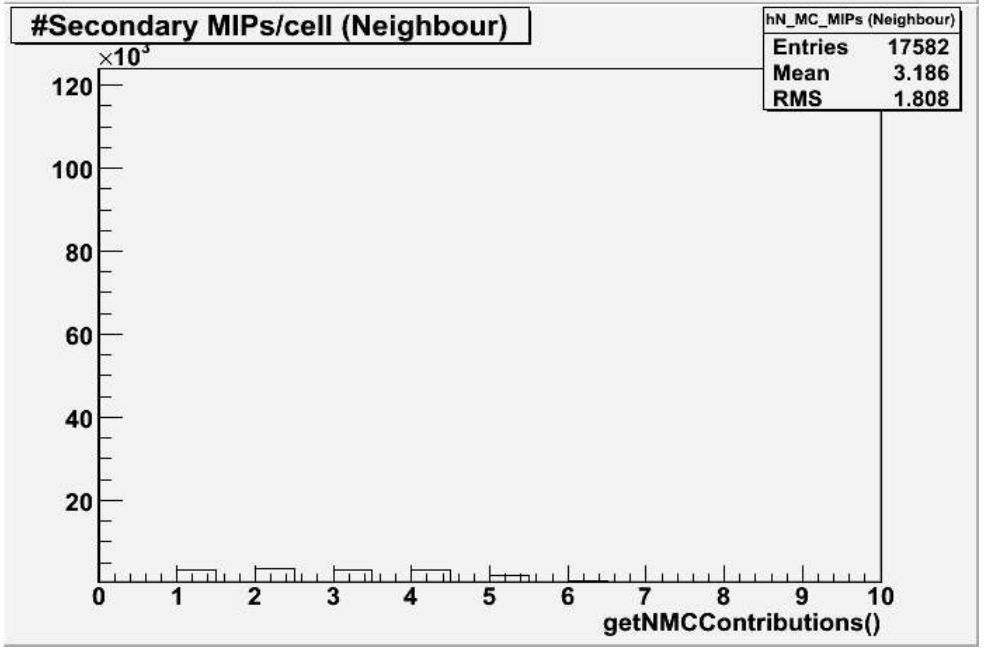
1) No neighbour hit within 80μm



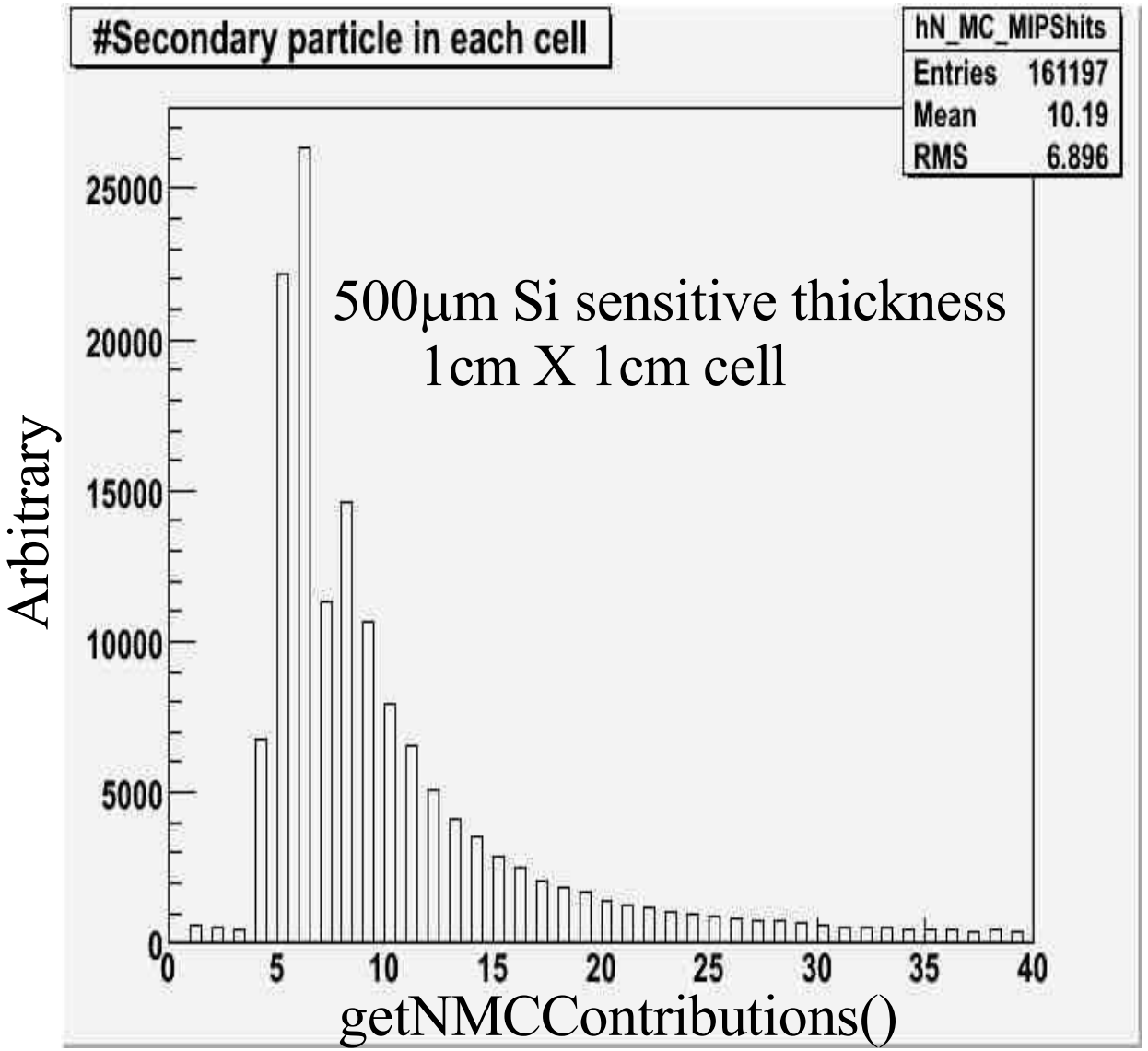


2) Neighbour hit exist within 80μm





500μm Si Sisensituve thickness (20GeV muon, 1x1cm^2)



- Peak position of 4~5 hits does not depend on Si sensitive thickness.
- Thinner sensitive thickness can suppress cell boundary effect as expected.
- Thinner sensitive thickness can suppress Landau tail in cell energy distribution.