

Non-prompt Component Study - 2

Using the Calorimeter Energy Distributions

2.1 The Event Set

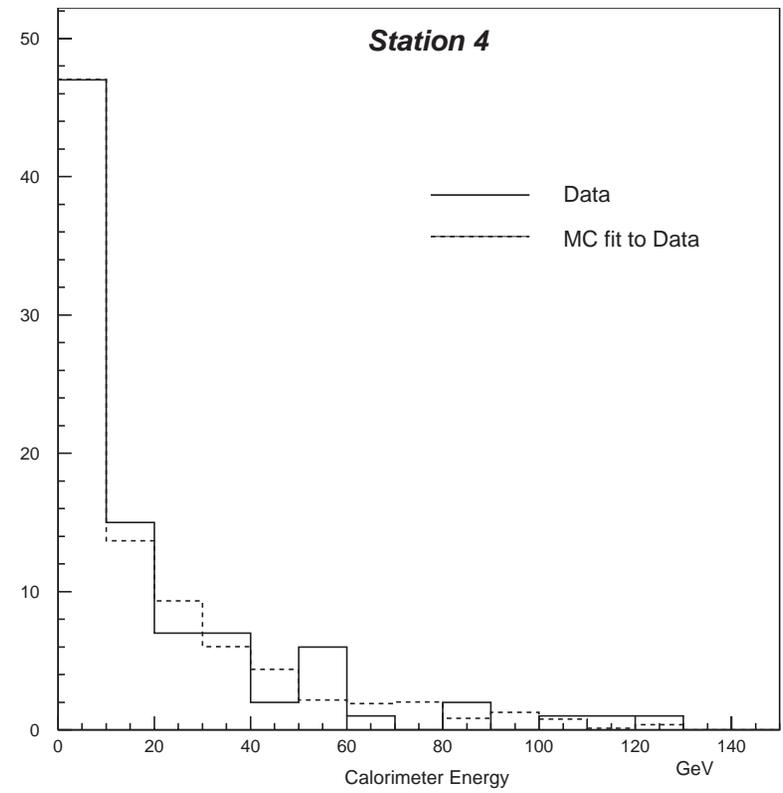
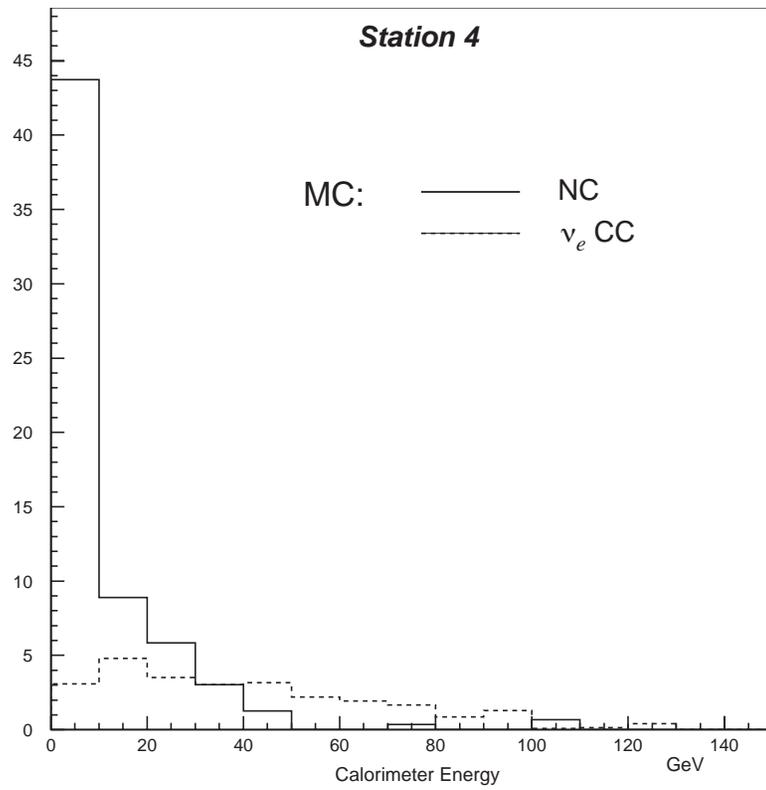
- The recently generated MC events 10K events
- The events listed in `/data3/events/new_lists/phase2_433.lis`
in which there are 446 events

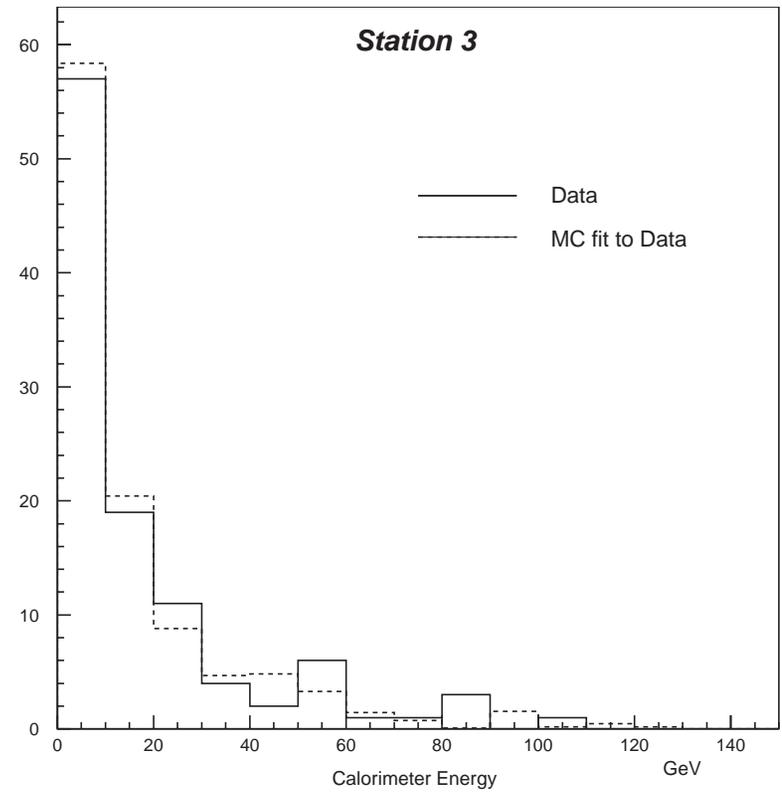
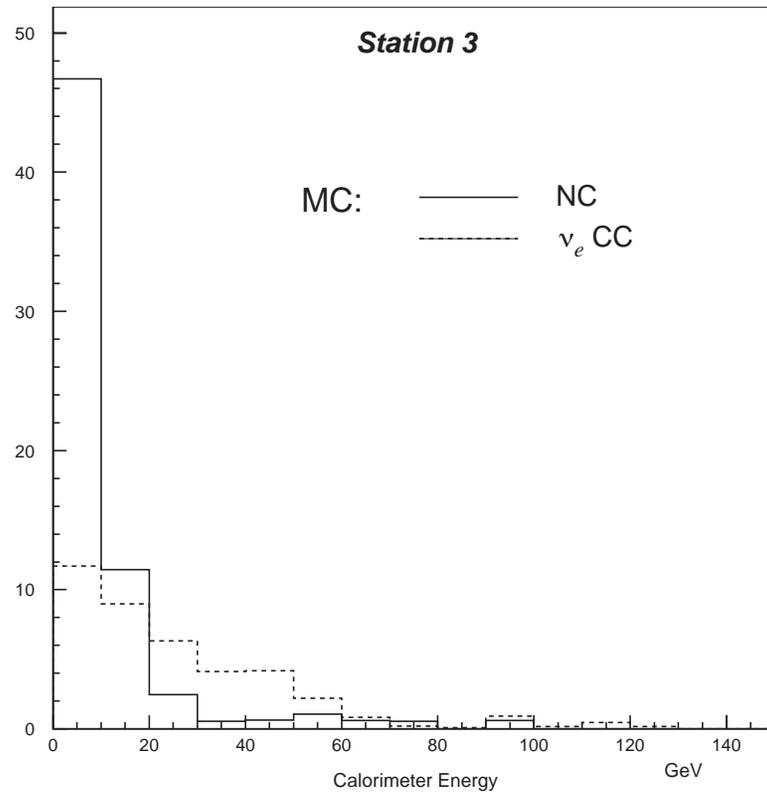
2.2 Analysis

1. Extract the MC calorimeter energy for ν_e CC; Station 4
2. Extract the MC calorimeter energy for $\nu_{e,\mu}$ NC; Station 4
3. Adjust 1 and 2 and fit to energy spectrum for Station 4 data,
Minimize w.r.t. a, b :

$$f = \sum \left(a M_i^{CC} + b M_i^{NC} - D_i \right)^2$$

4. Repeat for Station 3 data





Results

Station 4: Fit yields 40.4 ν_e CC events

Station 3: Fit yields 26.2 ν_e CC events

Correct to all Stations: multiply by 2.01

$$(40.4 + 26.2) \times 2.01 = 134 \nu_e \text{ CC events}$$