Subject: Re: PSA-hit Energy
Posted by miree on Wed, 14 Jan 2015 12:51:03 GMT
View Forum Message <> Reply to Message

Hello Riccardo,

sorry for the late reply.
I'm not completely sure what happens there. But I have a guess:

The data written into the root files have the same format as all arrays inside the analysis framework,
Here is an explaination of what I mean:
https://forum.gsi.de/index.php?t=msg&goto=17154&&srch=array# msg_17154

If an array is written to a root file with the same picture in mind.
The root tree gets the following entries:
1) one integer with the number of entries in the array (N)
2) one array with N entries, containing values
3) one array with N entries, containing indices (or channels)

Essentially, the arrays can have different N for each event.
If you are looking at gamma ray data, N is the gamma multiplicity.
if you draw such a leaf with the Draw() function of Root, it assumes that
all arrays in all events have the same length. The old code (new_prespec_Go4)
used a different way of representing the data in root trees, namely a plain
array with as many indices as the maximum expected multiplicity. All
places in the array that were not filled, get a default value.

I guess, to get rid of the spikes in the spectrum, you have to write an event-loop explicitely:

```
for (int event = 0; n < Nevents; ++n) // loop over all events
{
  for (int i = 0; i < gamma__energy_length) // loop over all gammas in one event
    hist->Fill(gamma__energy_value[i]);
}
```

I didn't test that code, that is just a suggestion...