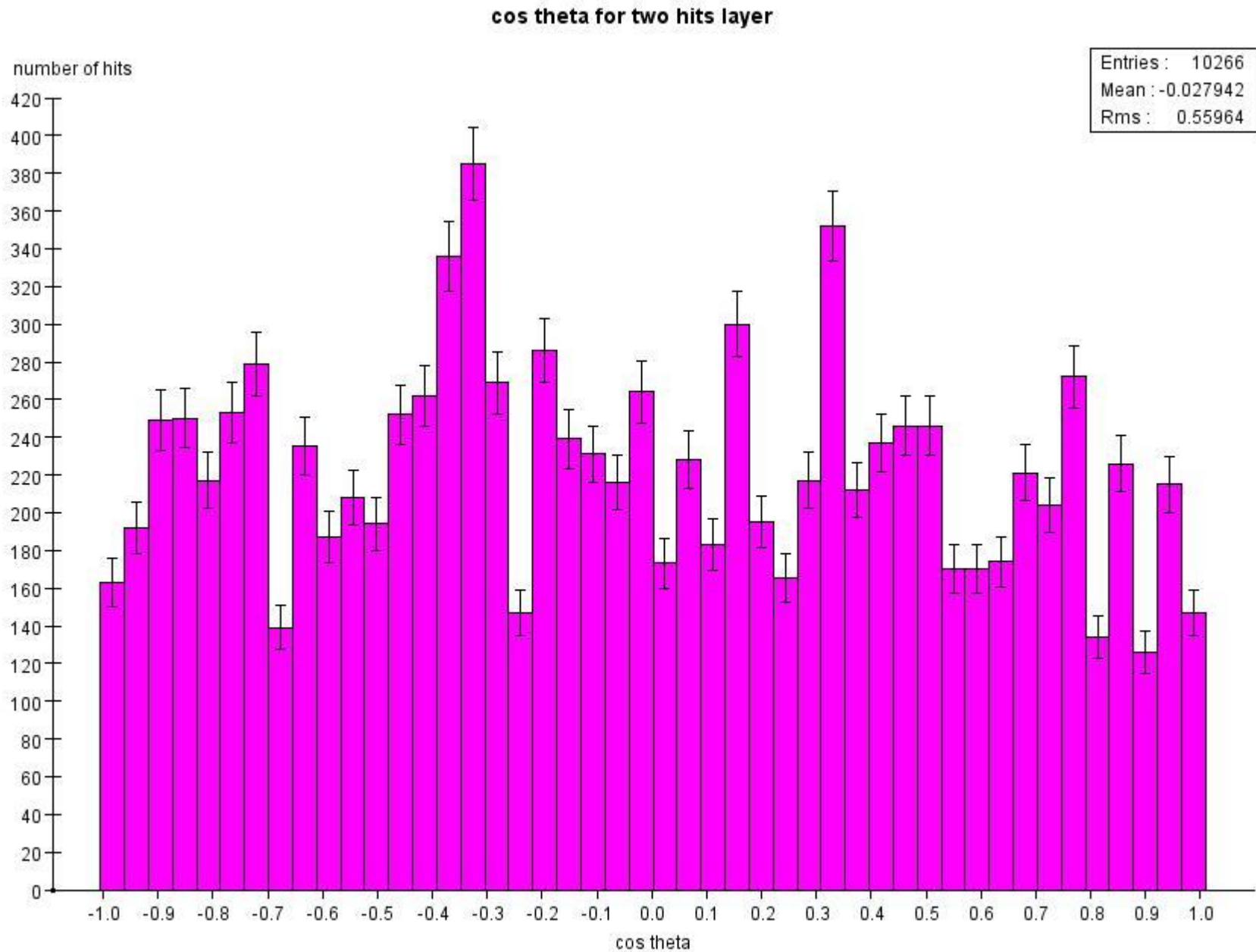## Hit distribution in Muon Det.

- Muon each layer has two read out. So it is supposed to have two hits per layer.
- Some of layers have only one hit.
- Ron suspected that endcap tends to have one hit.
- Used 1000 events of single muon sample (0-50GeV)
- Plot shows indeed that endcap has one hit more than barrel region.
- Energy is calculated based on the hit.
- Two hits in the same cell have different cell ID.
- So it will sum up two hits energy for one layer in barrel.
- But endcap uses only one hit for energy calculation.
- It will underestimate energy for endcap?

Distribution of two hits per one layer

cos theta for two hits layer

Distribution of one hit per layer

cos theta for one hit layer

Entries : 3437
Mean : 0.026054
Rms : 0.81977