

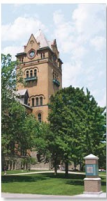


Test Beam PS, number of cells per clusters,
dependence energy of cluster and resolution vs
ncells.



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WSU



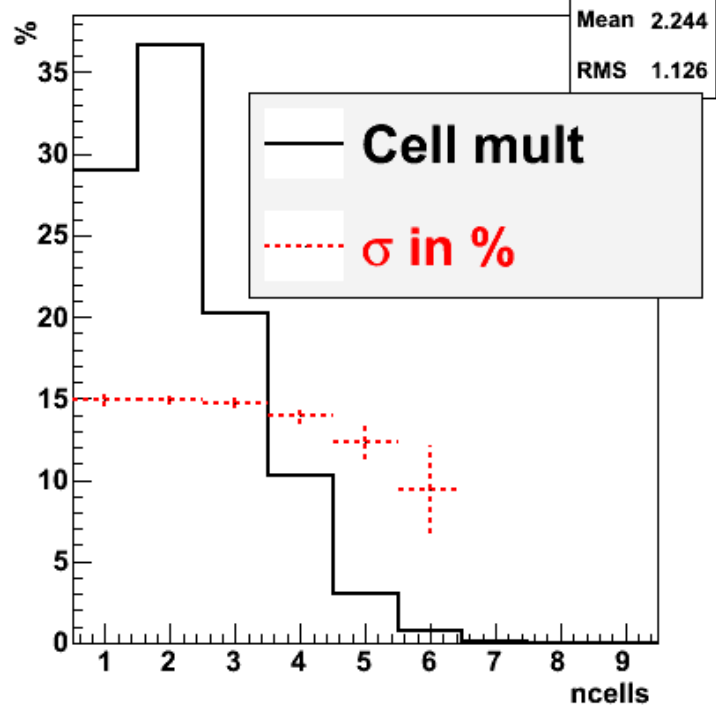
Analysis

- The cell threshold is 2 unit of amplitude.
It is ~ 30 MeV in energy scale.
- Discard events with edge clusters
- Discard event where clusters are closely to bad channel (c2,r6)
- Calibration was done on 6 GeV data.
- 0.5, 0.75, 1, 1.25, 1.5, 2, 3, 4, 5 and 6 GeV – 10 points.

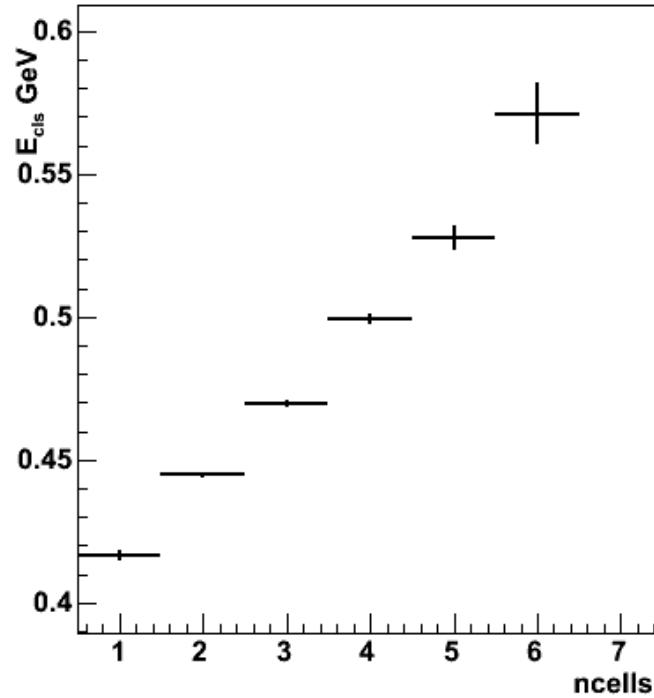


0.5 GeV

PS,2010,ncells in cluster : 0.50 GeV, th=30MeV

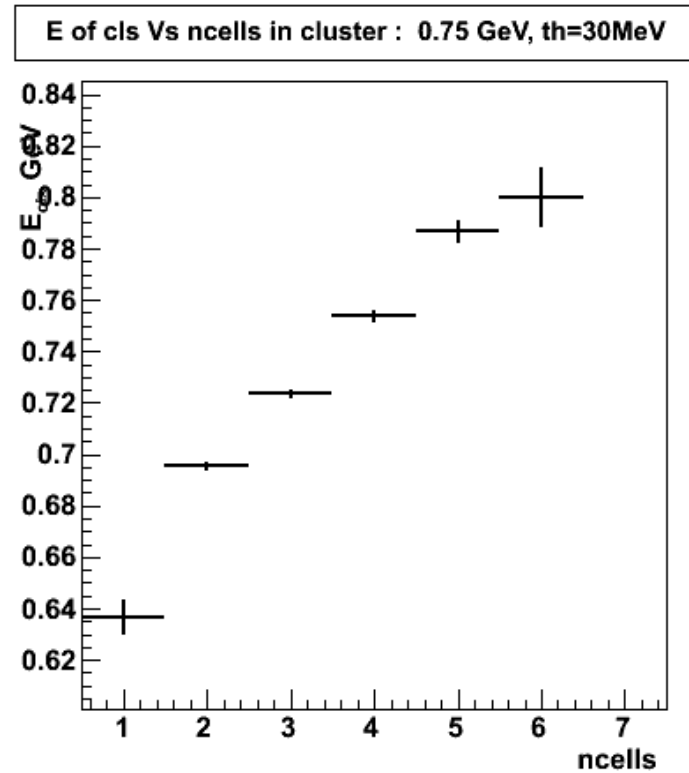
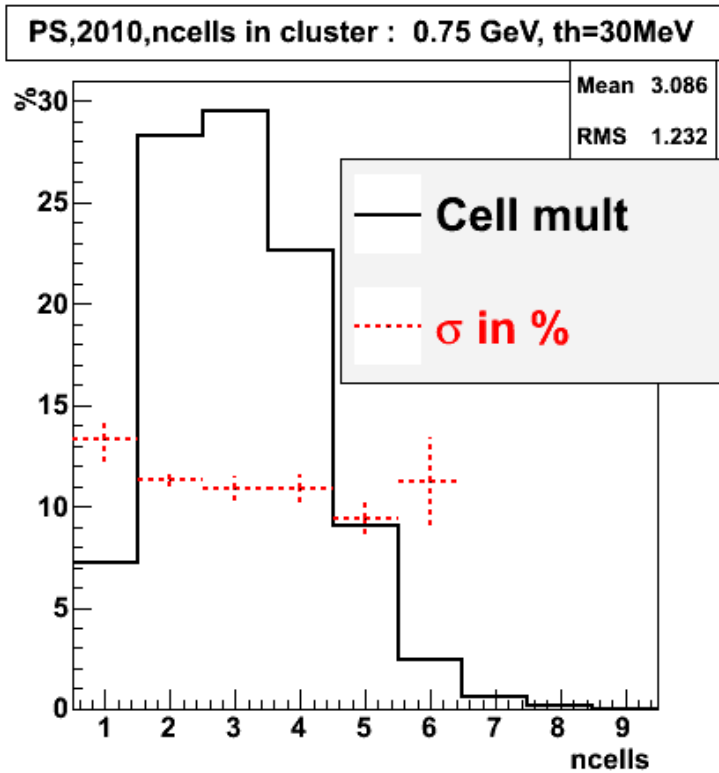


E of cls Vs ncells in cluster : 0.50 GeV, th=30MeV



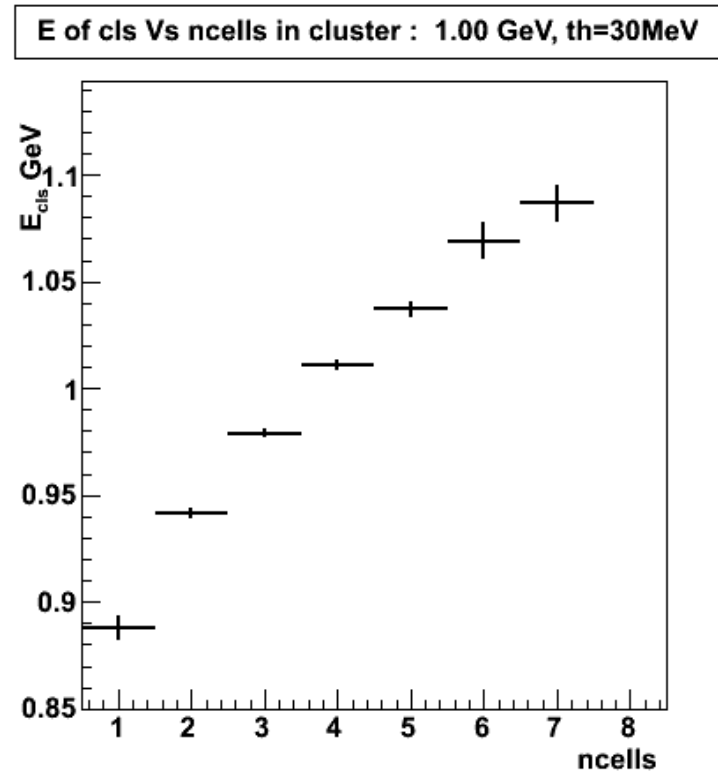
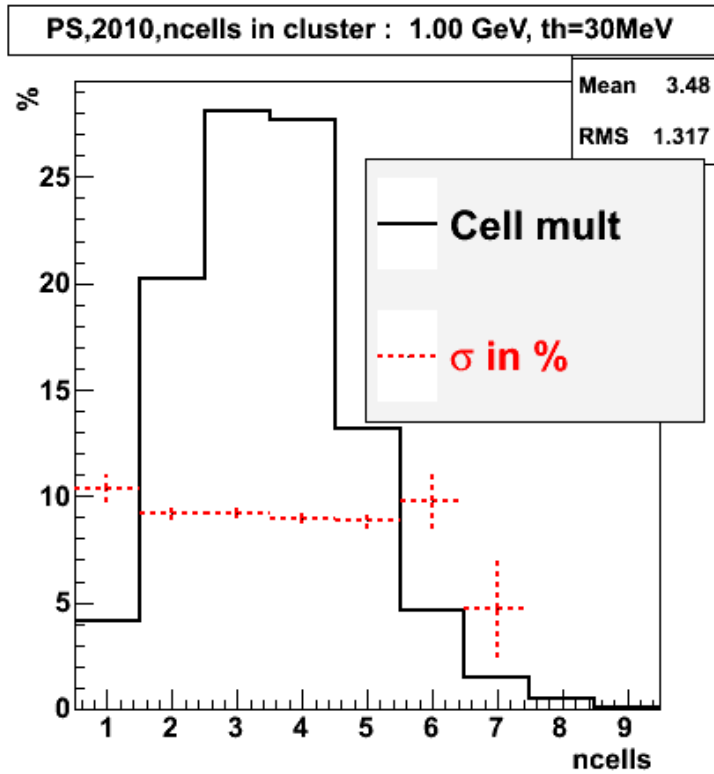


0.75 GeV





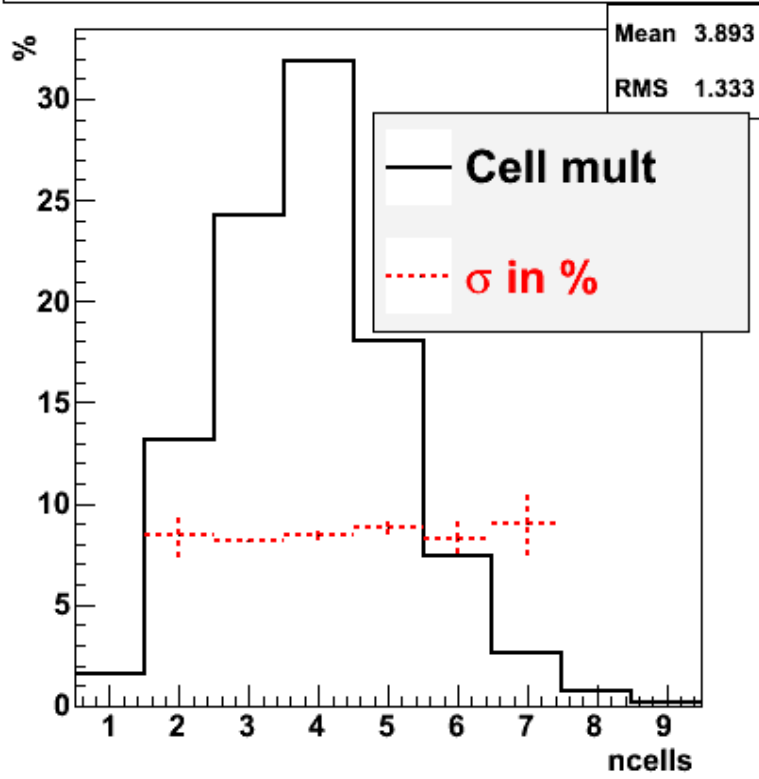
1 GeV



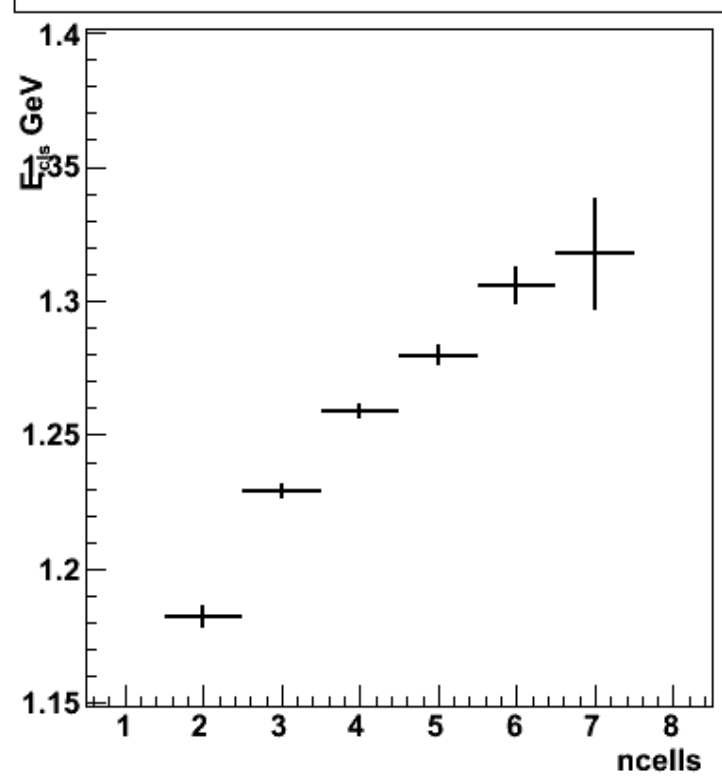


1.25 GeV

PS,2010,ncells in cluster : 1.25 GeV, th=30MeV

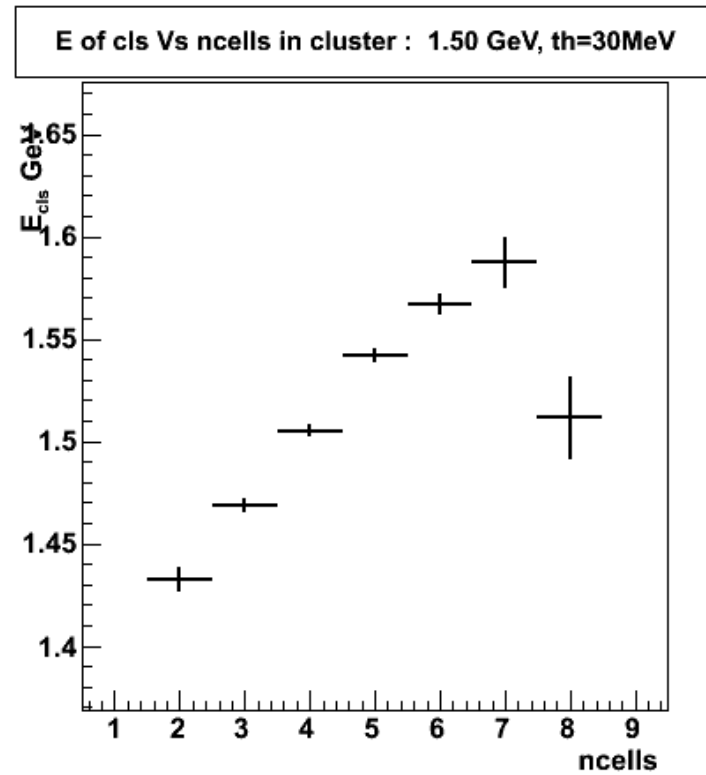
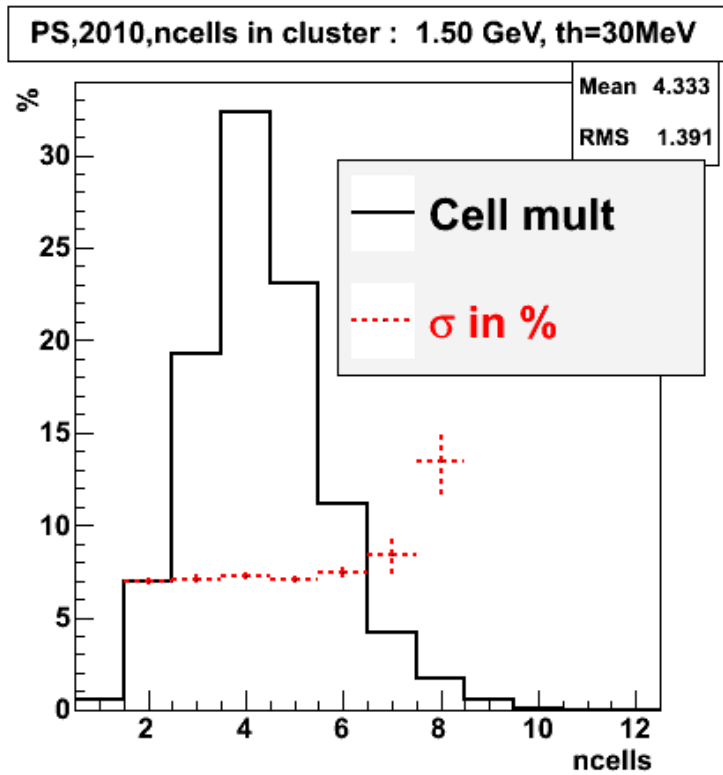


E of cls Vs ncells in cluster : 1.25 GeV, th=30MeV



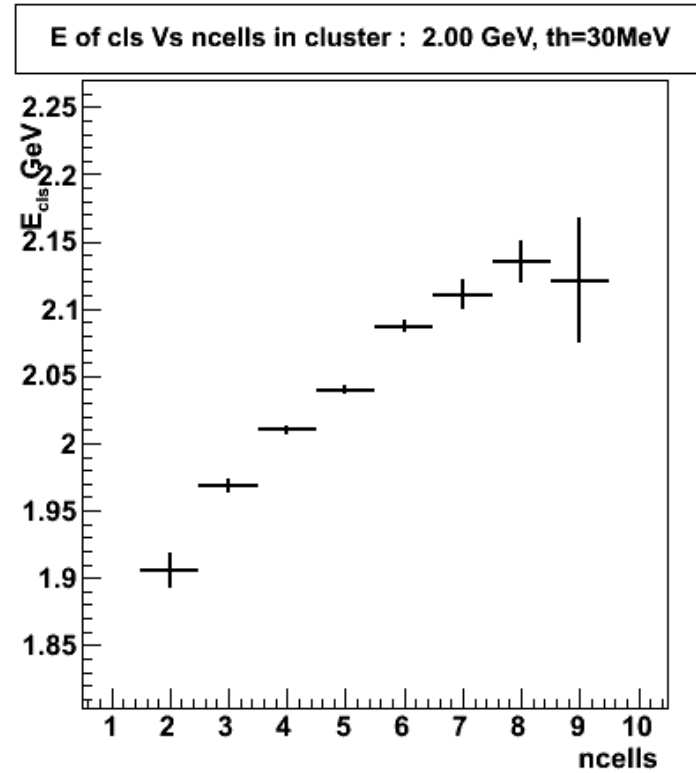
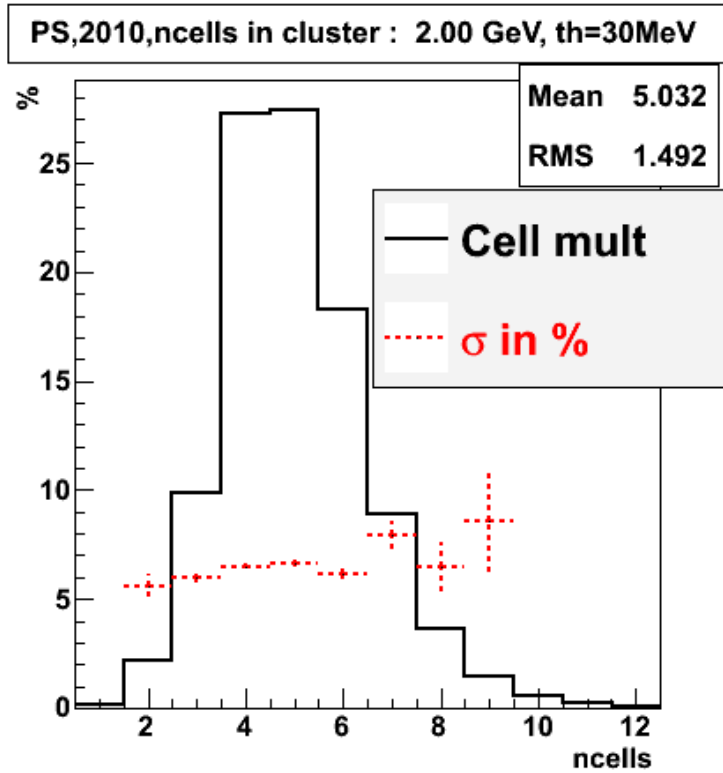


1.5 GeV



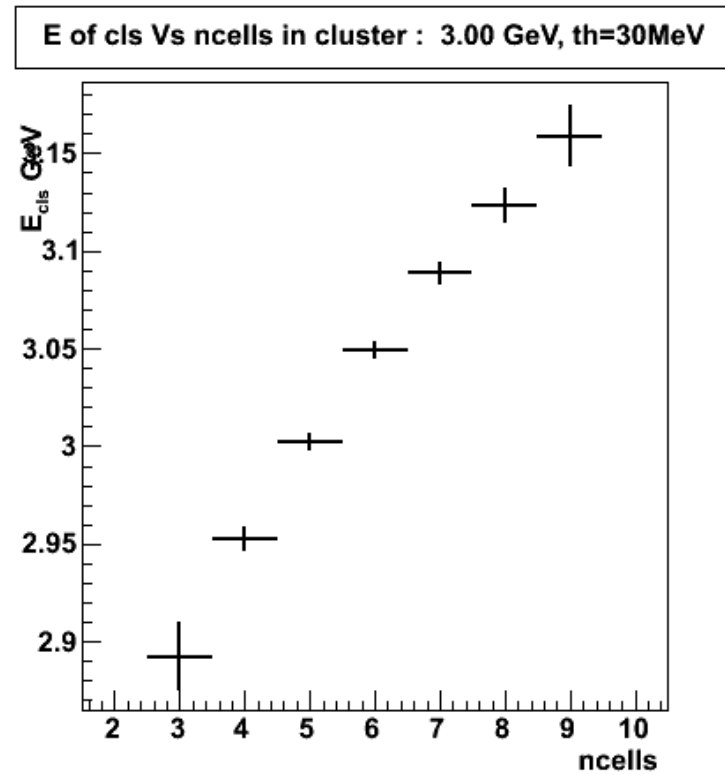
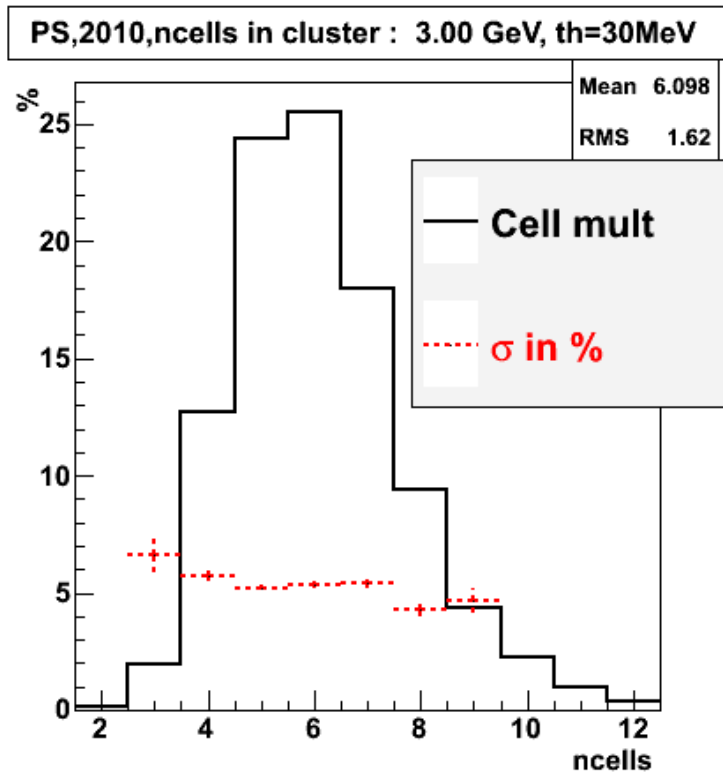


2 GeV



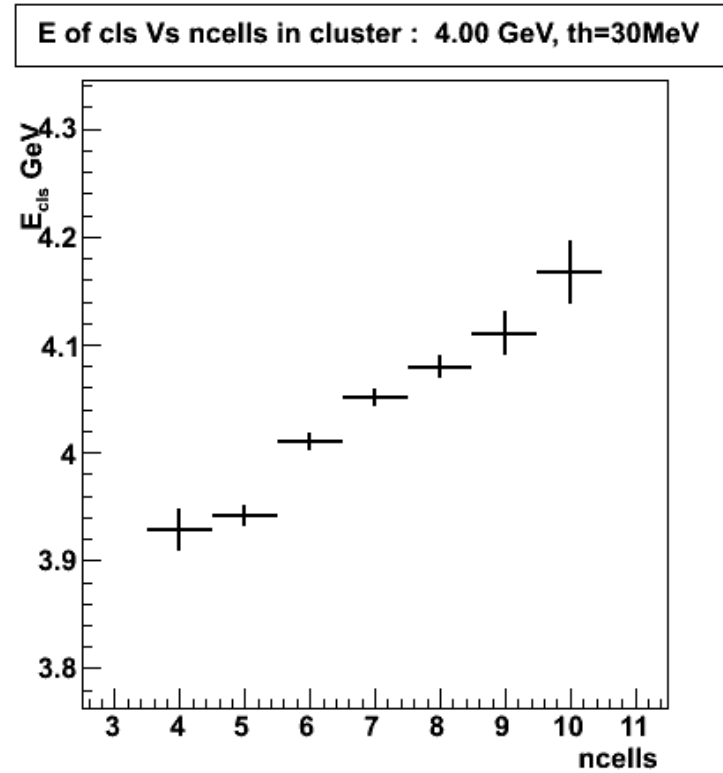
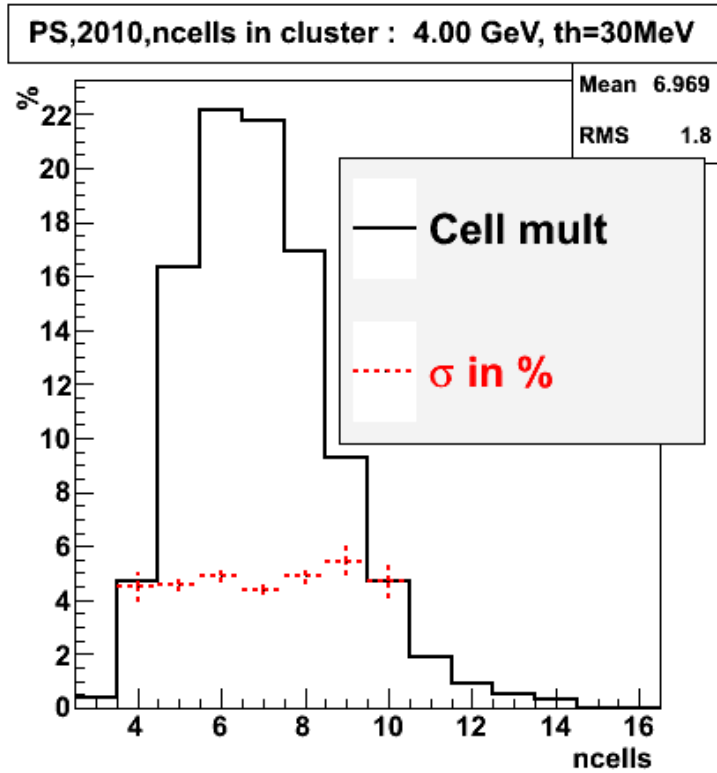


3 GeV



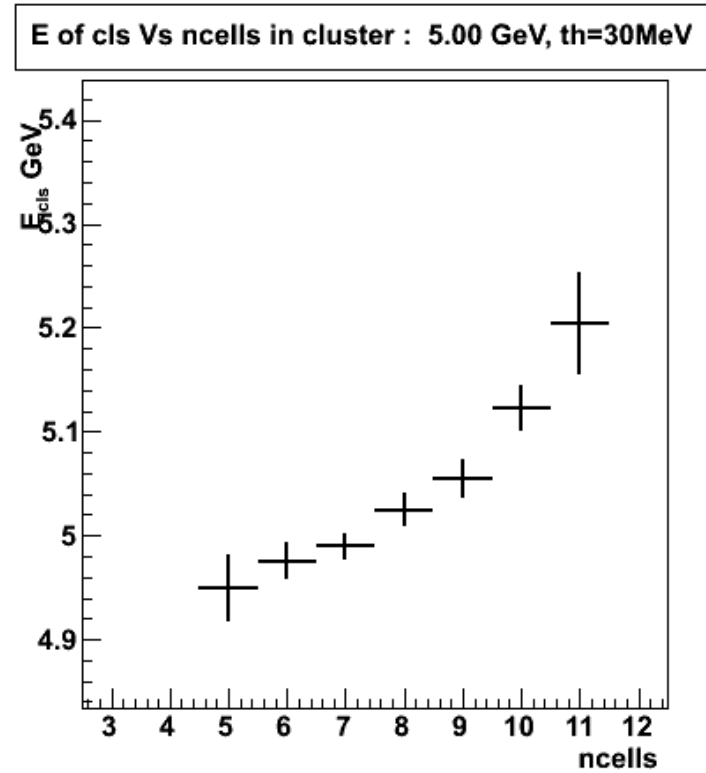
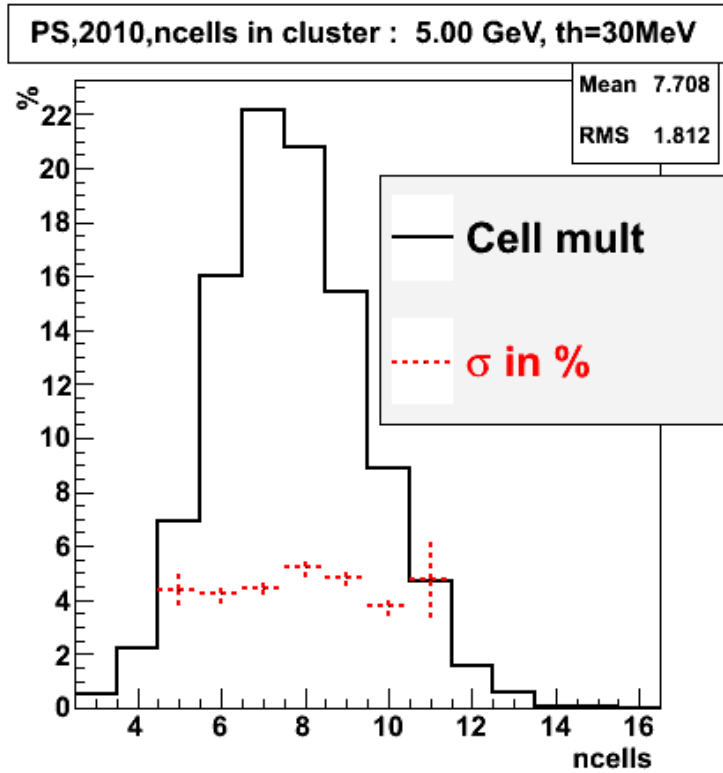


4 GeV



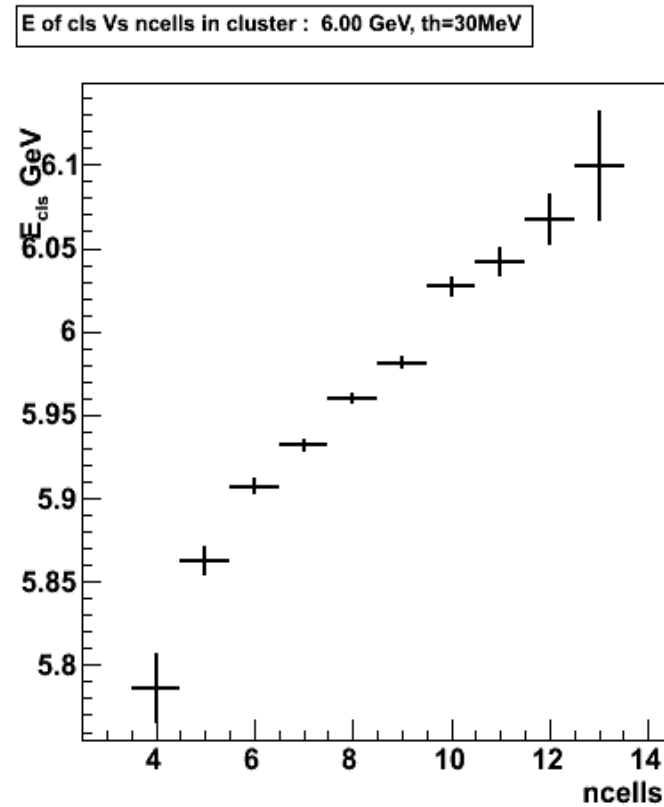
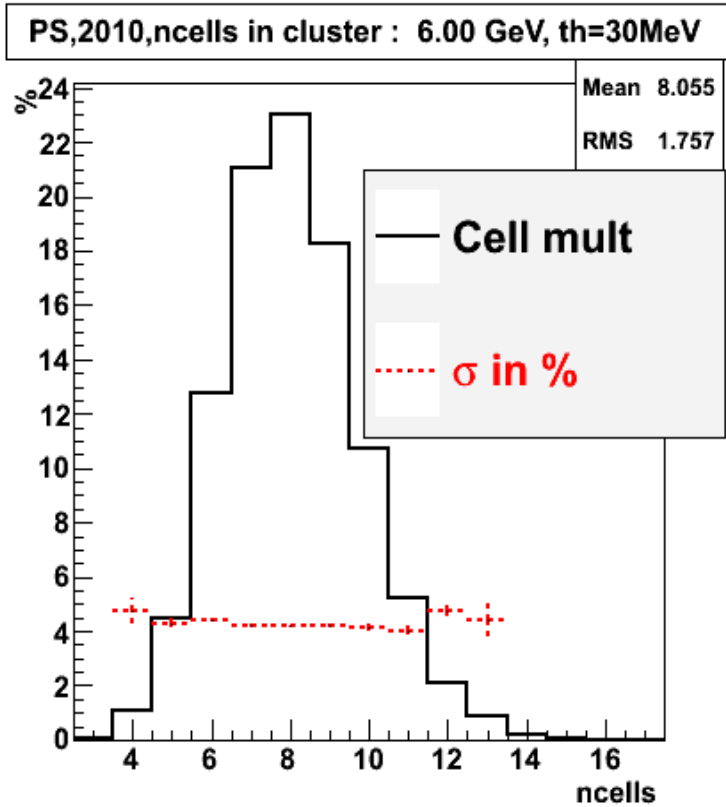


5 GeV



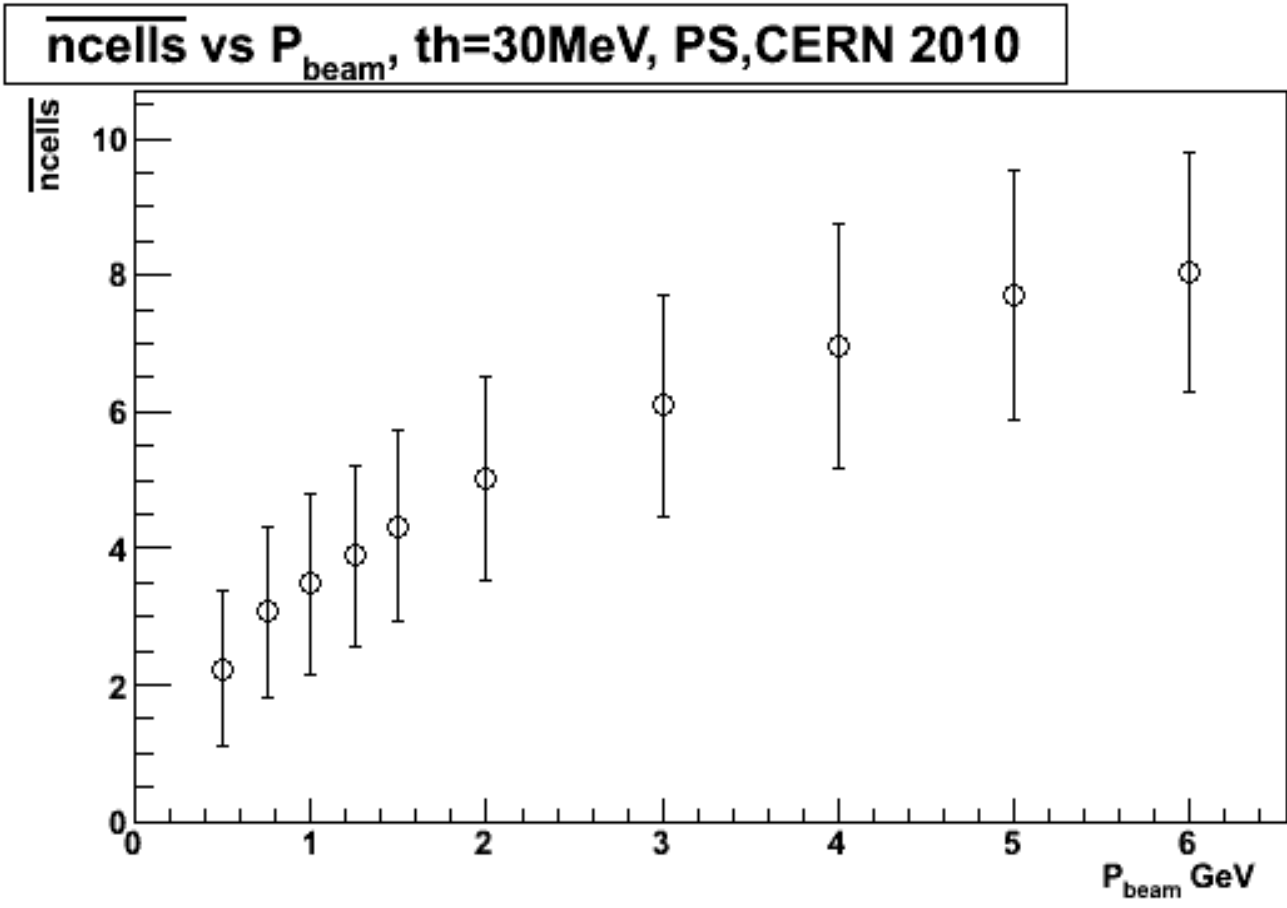


6 GeV





Mean(ncells) vs P(beam)





Conclusion

- Number of cells in cluster is growing with beam energy
(look to slide 3-13)
- Relative resolution is flat for $P > 2$ GeV and may be shows less value for greater value of ncells for $P < 2$ GeV
- The reconstructed value of momentum increases with number of cells in clusters for all beam momentum