

MIT HCAL variants ZZ mass/energy plots

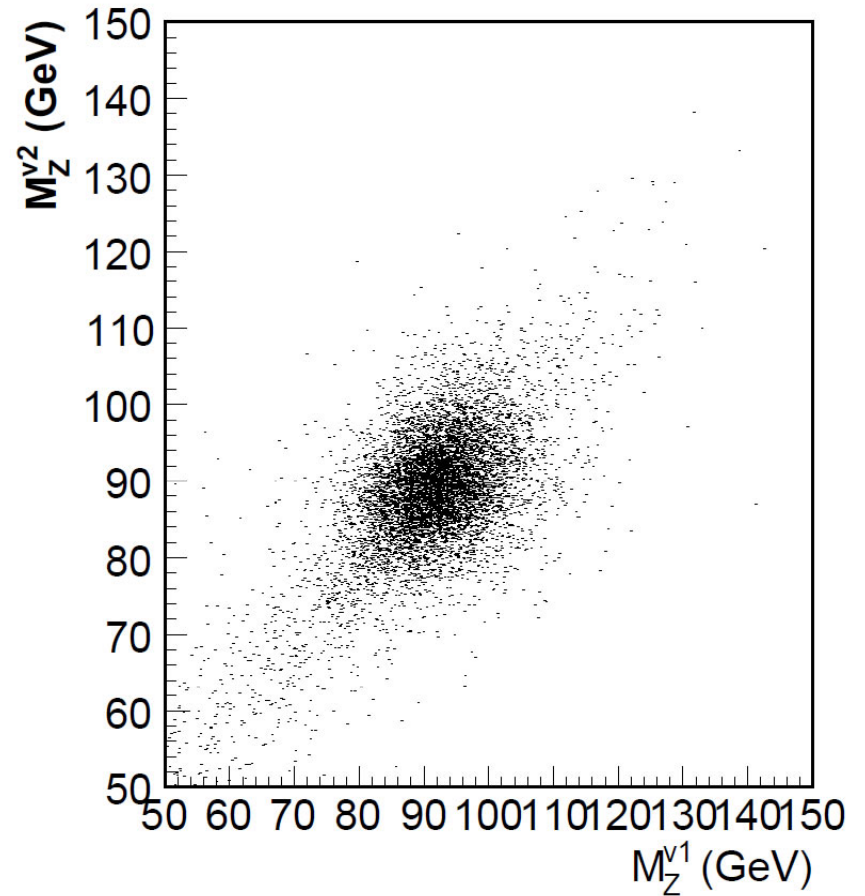
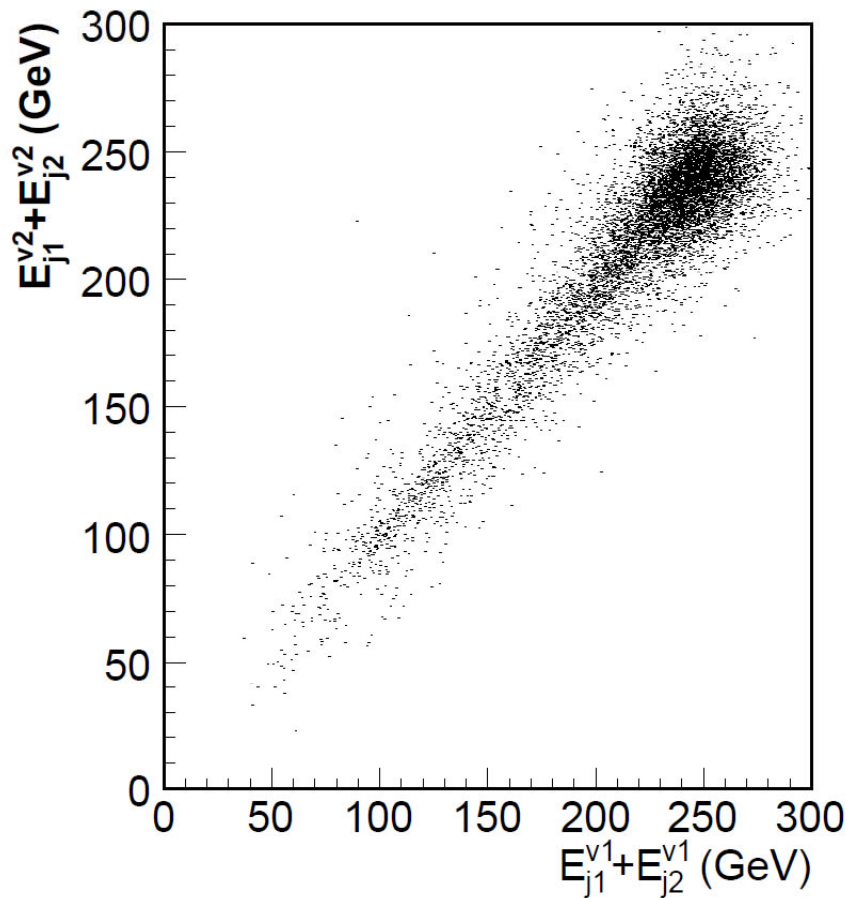
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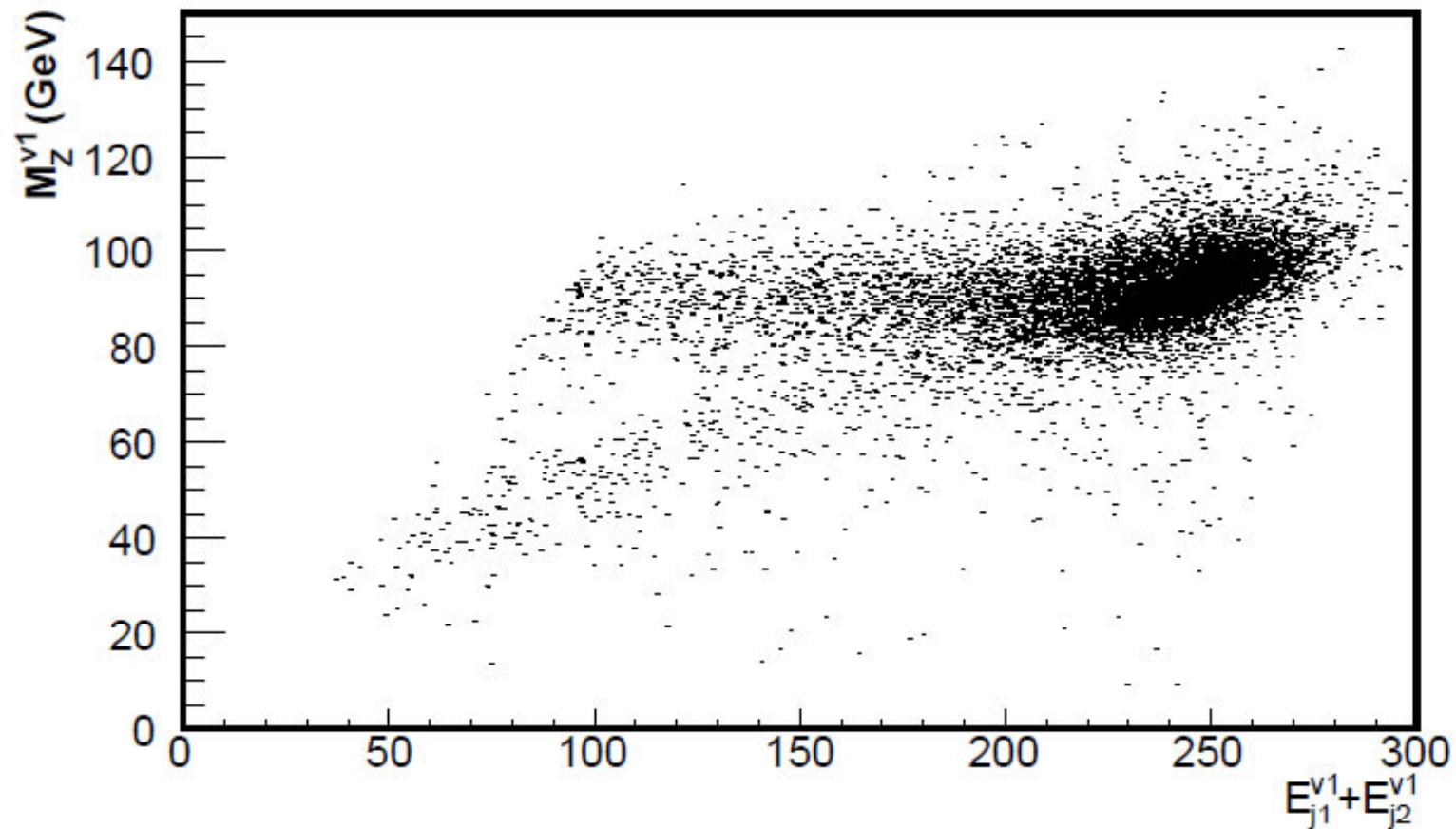
Definitions for following plots

- Following plots compare these two HCAL variants
 - Variant 1 (v1): 4.0 λ , 30 layers, cell size 1x1 cm²
 - Variant 2 (v2): 6.0 λ , 60 layers, cell size 1x1 cm²
- Data is ZZ @ 500 GeV, Z \rightarrow nunubar, Z \rightarrow uds
 - With gluon radiation and beamstrahlung

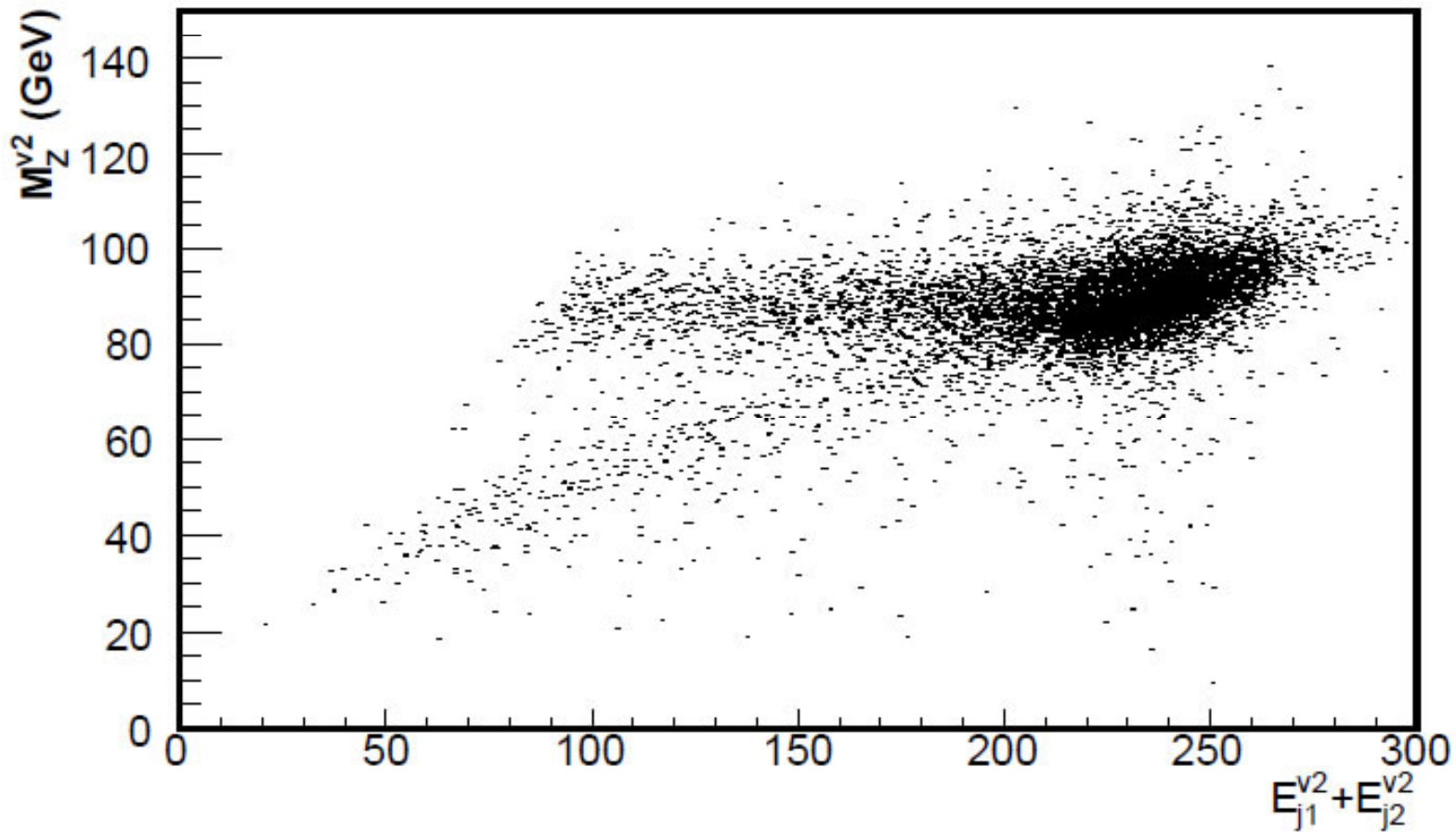
V1 vs. V2 recon energy sums, mass



V1 recon Z mass vs. recon E sum

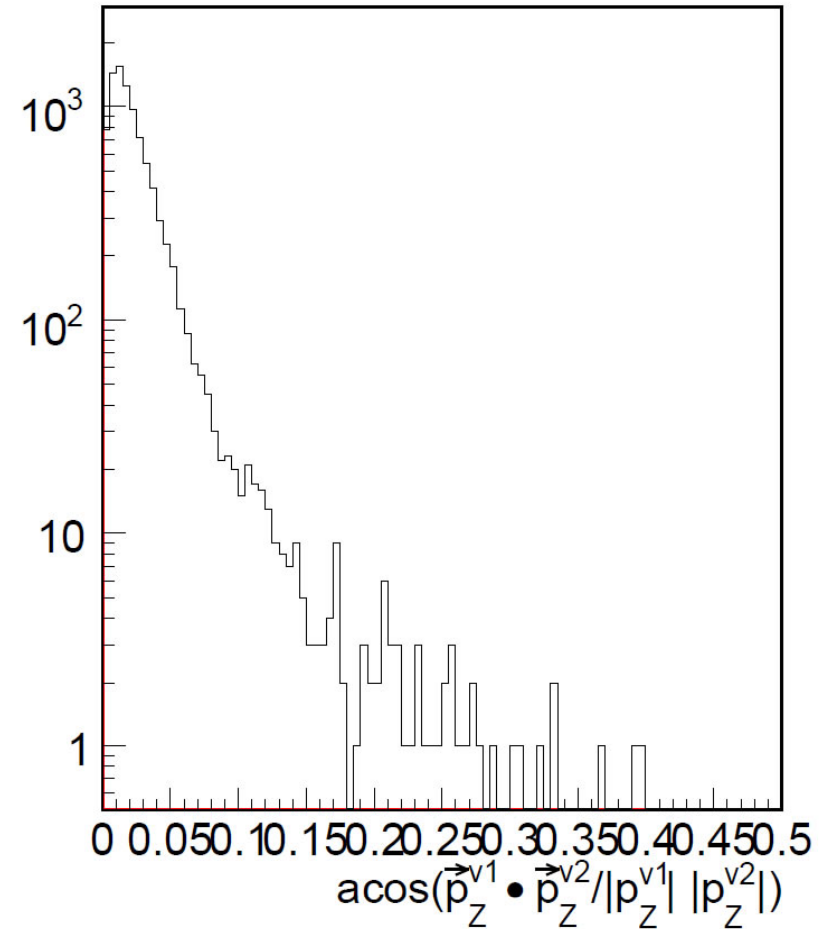


V2 recon Z mass vs. recon E sum



V1 vs V2 recon dijet angle (acos)

Note: horizontal axis runs from
0.0 to 0.50 radians



Other activities

- We have obtained permission to use the CMS Tier 2 facility at MIT
- Will run the $\lambda = 4.5$ and $\lambda = 5.5$ variants
- Should be done much faster than on our small Condor batch system