



Electron Simulation Validation Report

Greg
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- Electron Simulation Validation “Group” met last week for first time
 - M. Kirby, G. Veramendi, K. Ikado, P. Yoon, H. Gerberich, J.Y. Chung, J. Goldstein
- Just getting started. Reviewed Marjorie’s task list:
 - Check Energy scale at center of Tower
 - Check electron Id quantities with FakeEv
 - 40 GeV electrons shot evenly in eta and phi
 - Compare Data and Simulation for distributions from W’s and Z’s



Samples: FakeEv

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- Samples: `fcdfsgi2:/cdf/data40a/s0/top/SimValidation`
 - Generate and Simulate using 4.4.0
 - Reconstruct using 4.3.2
 - We want this to match the data as closely as possible
- 10k 50GeV electron FakeEv events at center of each central eta tower (Kirby)
 - Uses Erik Brubakers code
 - Finished
- Generate 100k 40GeV electron FakeEv events evenly in phi and eta for both central and plug detectors (Kirby)
 - Finished



Samples: W/Z's

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- Generate Large number of W and Z events (Herwig) (Phil)
 - Requesting 1 Million events from the farms (250k x 4 (mu, e))
 - Finished 10k test, files are on fcdfsgi2
 - After revisions of tcl file, and patches to production ready to go!
- Make corresponding Z and W samples from data (Greg)
 - Finished: ~5800 Central W's and ~750 Z's



Changes to default tcl files

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- Tcl files for sim and production had to be modified
- Simulation
 - Turn on passive geometry in Silicon
 - declareStripChamber set true
 - Add many muon banks to output:
 - CSXD, BMUD, BSUD, TSUD
- Production
 - Turn off SiClusteringCorrection
 - Turn off SiliconAlignment
- Specific to releases that we are using (typical?)
- Creator?? → NSIM
 - Problems running over the data



Division of Labor

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- Systematically go through the different sub-detectors and check energy scale, ID distributions, ID efficiencies, and fiducial volumes

Detectors	Person
CEM	Jong-Young
CES	Koji
CPR	Greg
COT	Heather
PEM	Phil
PES	Joel
PPR	Kirby