

SUSY PAT Layer 1 Validation

Hamburg SUSY Meeting
21.07.2009



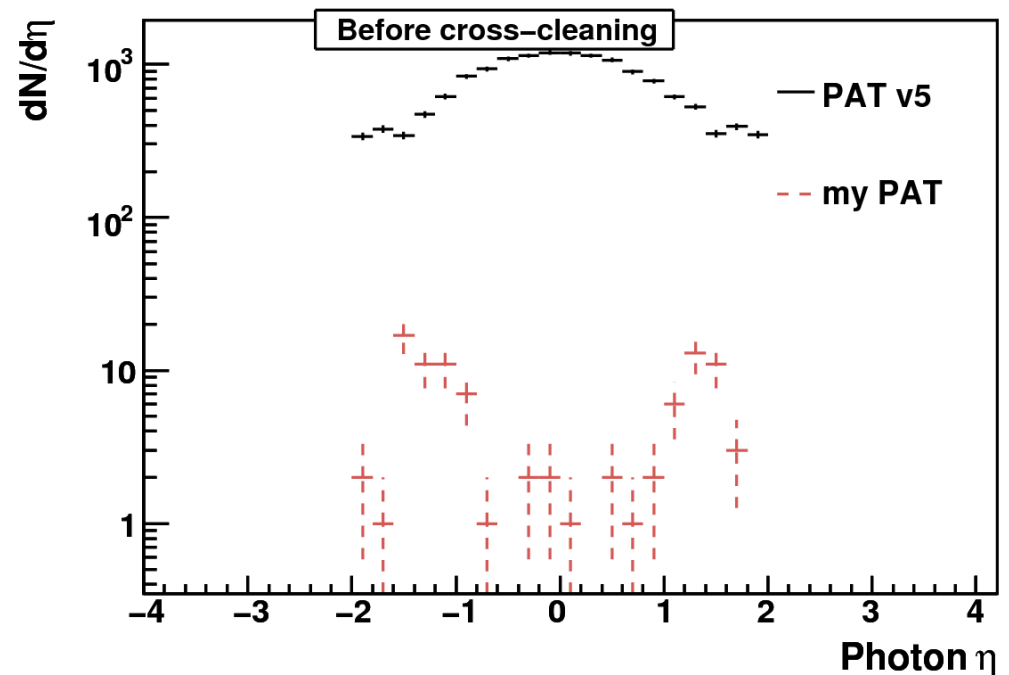
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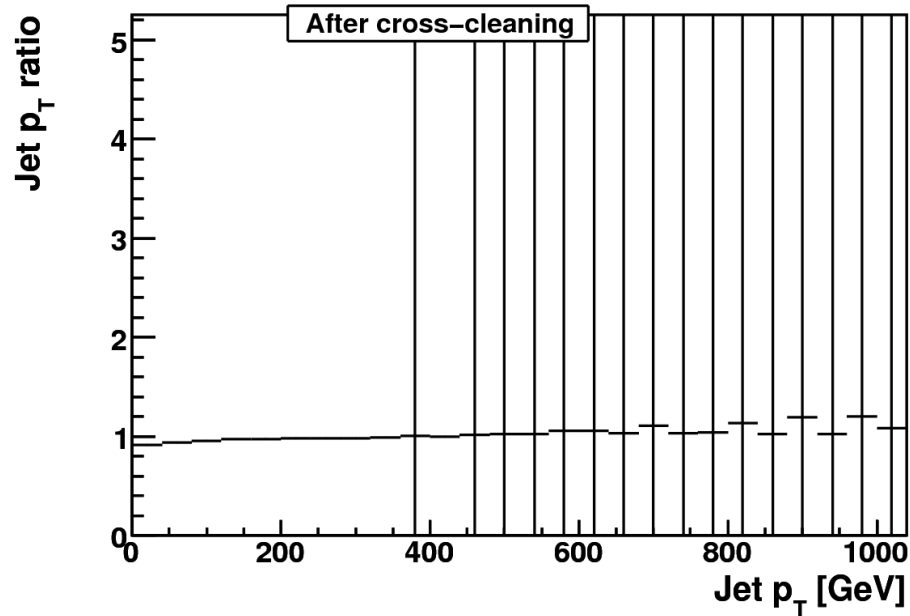
Cross-Cleaning on PAT samples

- Test of cross-cleaner on the 'official' SUSY Layer1 samples.
 - All necessary collections are available
 - No problems running the cleaning module.
 - Results look reasonable
 - Compared to own (on the fly) PAT production
 - Identical spectra before cross-cleaning (except for photons)
 - Discrepancies after cleaning due to different tags ?

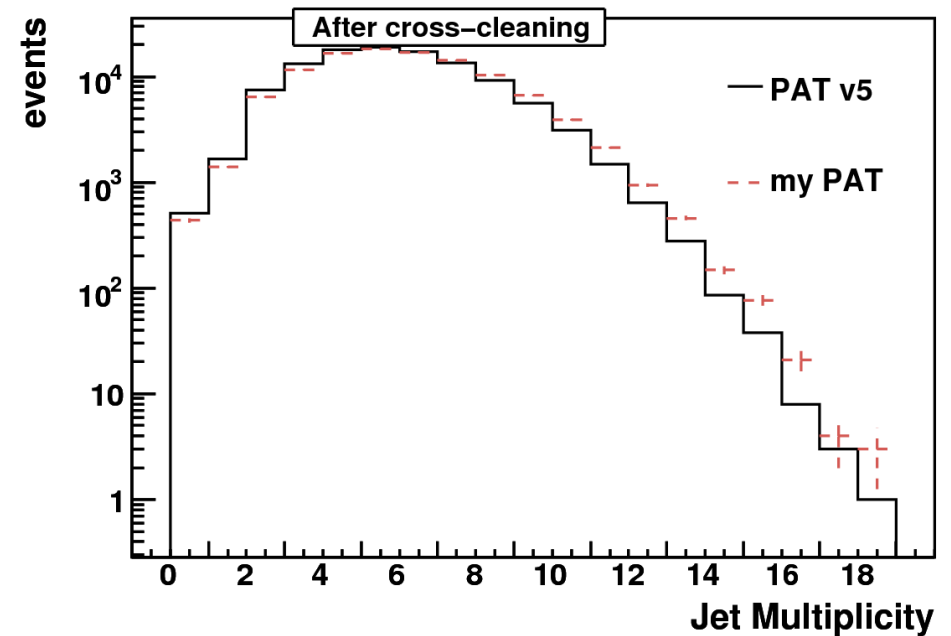


- Largest difference: Photon ID working in official production
- Excluded photons from cleaning in following plots

Jets

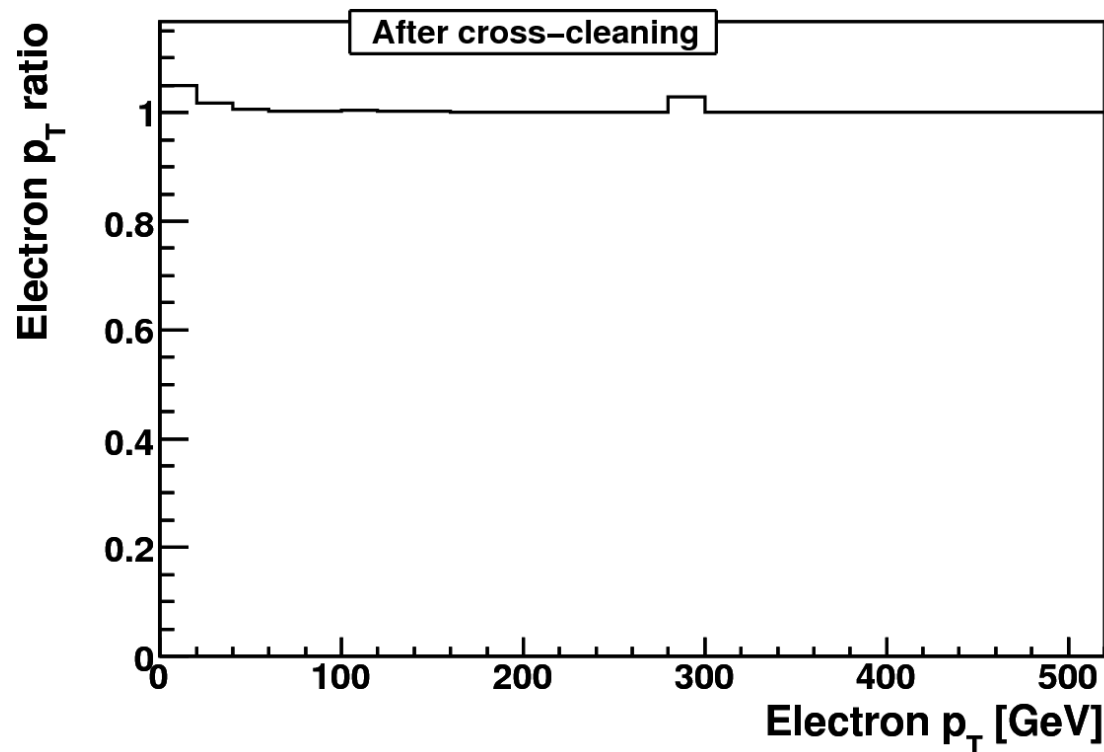


- Jet p_T ratio PATV5/myPAT
 - >1 for large p_T
 - <1 for low p_T
 - JEC issue?



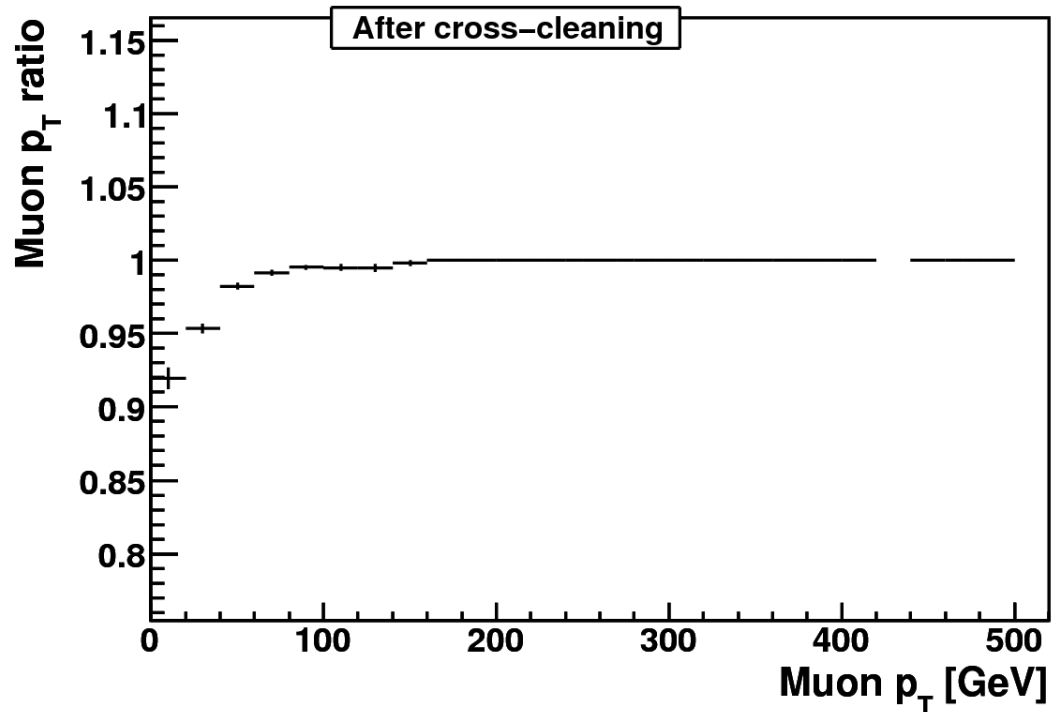
- Higher jet multiplicity for myPAT?

Electrons



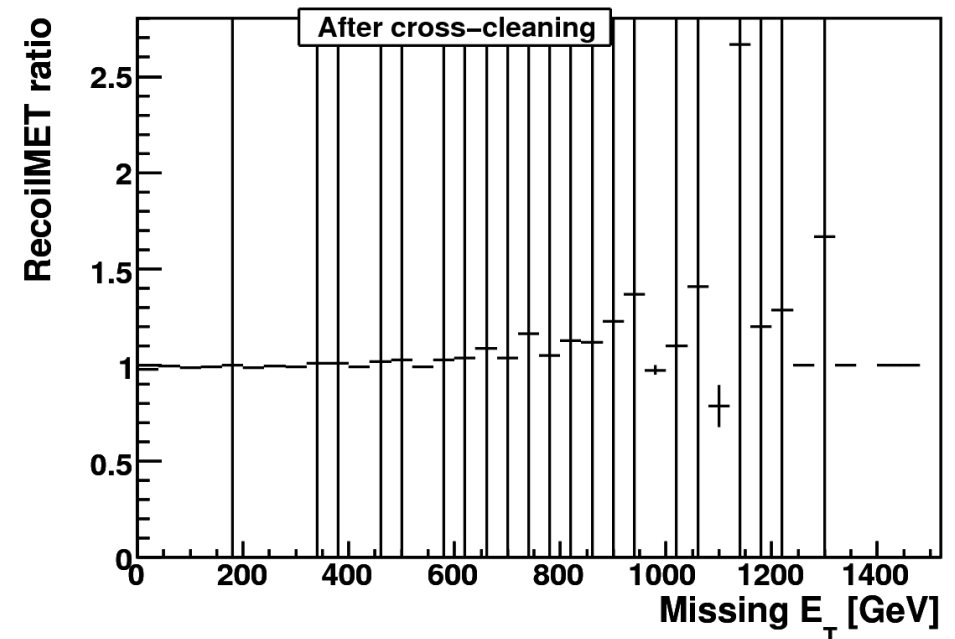
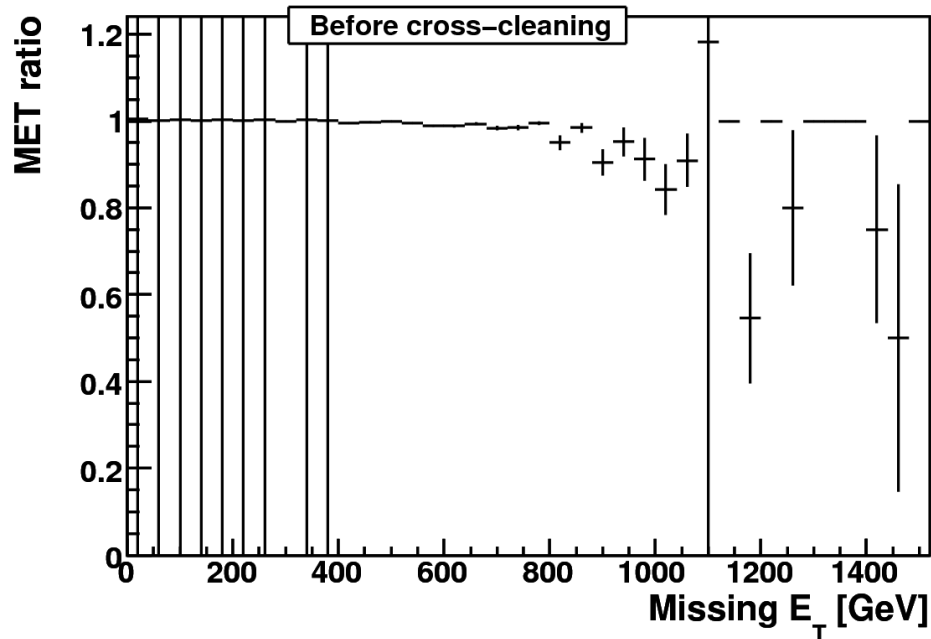
- Small differences at low p_T
- Some more good electrons in PAT v5?
- Strange bump at 300 GeV

Muons



- Large discrepancy at low p_T
- Less muons survive in PAT v5?
- Issue with muon ID?

Missing E_T



- Initial MET collections not identical?!
- Differences in object spectra reflect in recoil MET after cleaning