



# Electron Certification Status

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# What is "certification" ?

Same philosophy as for p13 certification (see E-ID web page). Provide a set of emreco tags to be used in all analyses (possibly via d0correct), complete with description of accessor functions. This software delivers "fully corrected" electron candidates. Provide discriminants and sets of cuts. Provide numbers that describe performance (efficiencies:  $Z \rightarrow e e$ , fakes: EM + jet events).

## What is new in P14 ?

### ● Track Matching

- New constants with improved method. Robert's code is being finalised.
- First performance plots from Junjie.

### ● HM7

- In addition to HM8, not a replacement.
- The code is ready and available.
- First performance plots from Junjie.

### ● Geometry Correction

- Same method, improved MC (Magnan *et al.*).

### ● Likelihood

- A lot of work done for improved definition. Finalised.
- DO note available (Kozminski, Park, *et al.*)

### ● CPS

- Can be included in likelihood (Gardner, Jabeen, *et al.*)
- same DO note as above

### ● EM Scale Correction

- Refined existing method.
- Determining new factors after new geo correction, small change (Kermiche *et al.*).

### ● T42

- In practice this means: not one certification, but two. The same procedure, once with and once without T42.
- Worst bottleneck: rerun MC samples for geo corrections with T42.

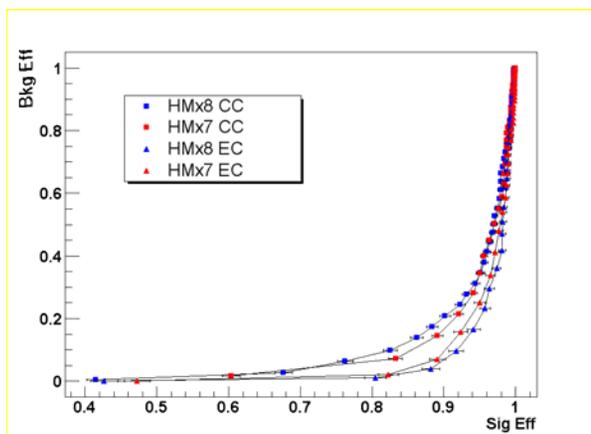
### ● Samples

- First p14.03 reprocessed sample is available in SAM. It contains about 140 Z events. John Gardner reported a problem with CPS variables.
- There are skimmed thumbnail samples by Top and NP group. Longer term: is it possible to get a picked sample in raw or DST format?



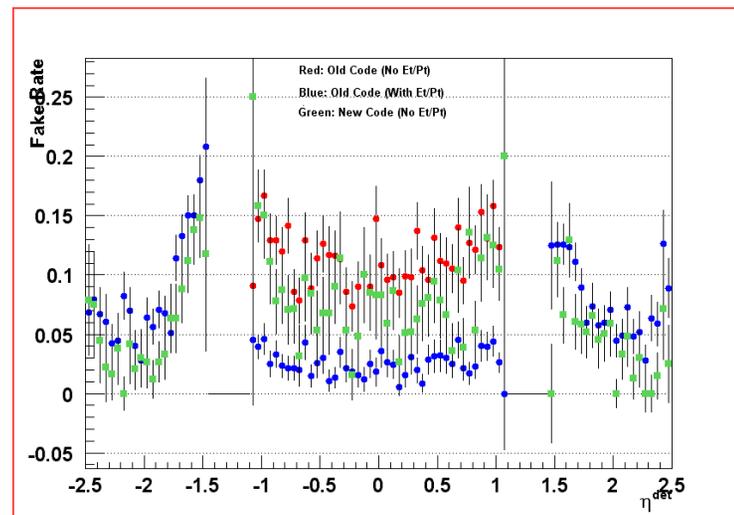
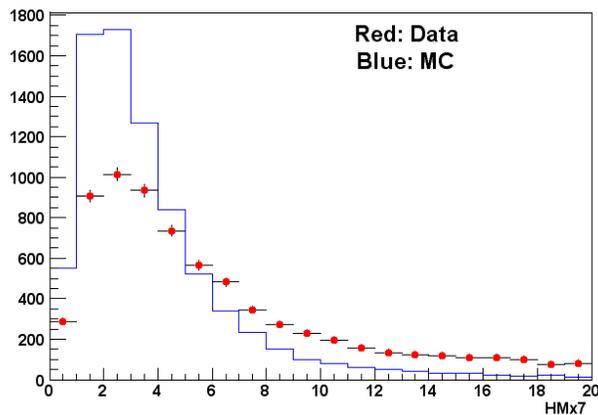
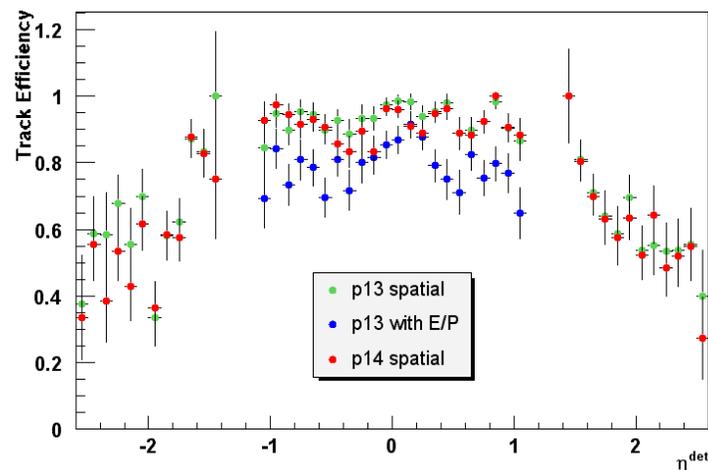
# Some plots

## H-matrix



## Track matching

### Track Efficiency vs DetEta (with E/P requirement)



Goal: wrap this up in the first half of next week.