

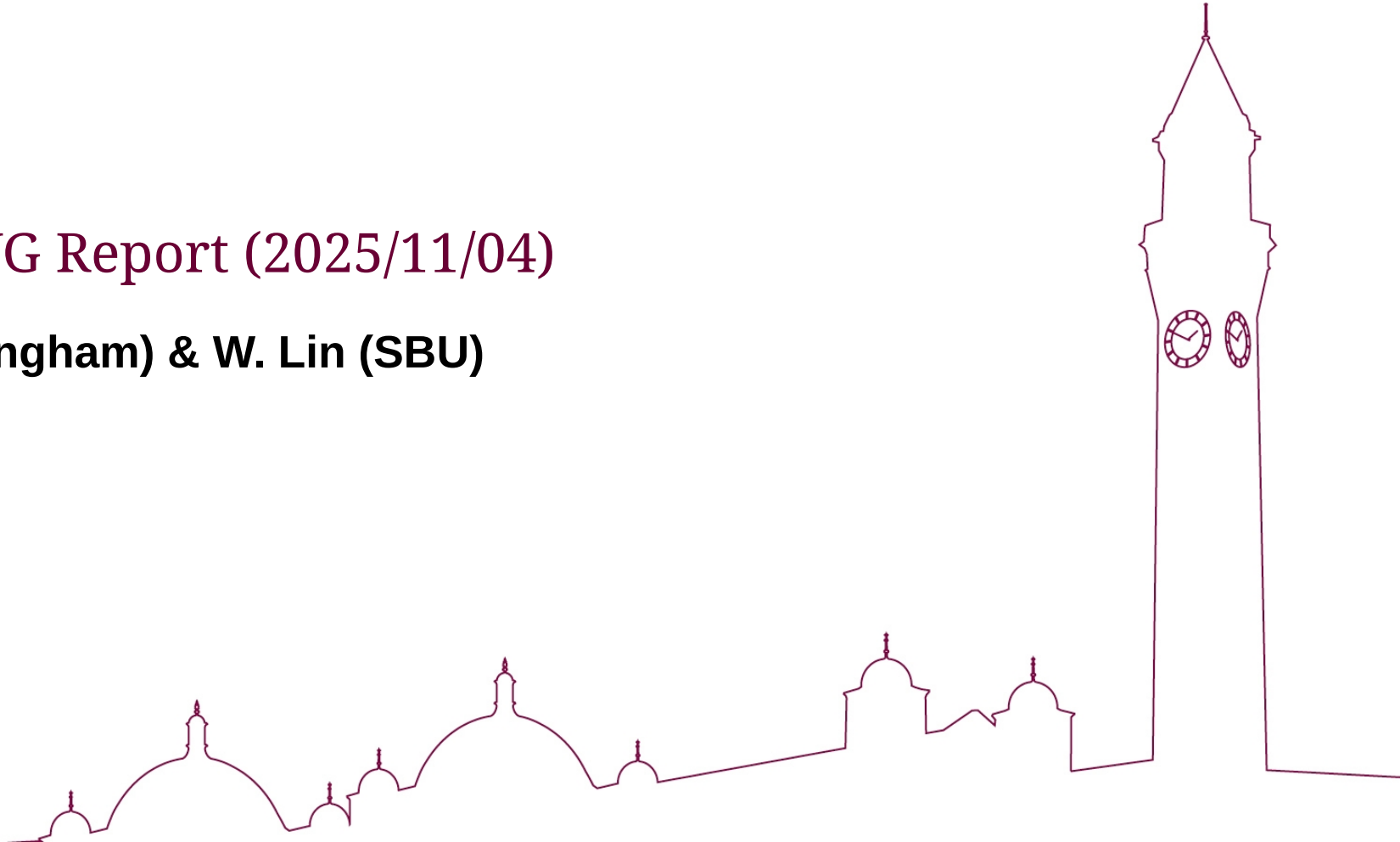


UNIVERSITY OF
BIRMINGHAM

SCHOOL OF
PHYSICS AND
ASTRONOMY

Inclusive PWG Report (2025/11/04)

S. Maple (Birmingham) & W. Lin (SBU)



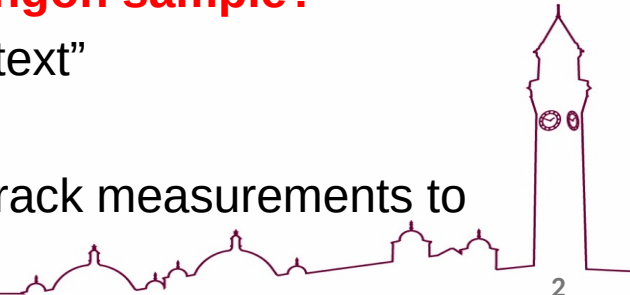
PreTDR Open Tasks Summary

■ Section 4.2.1 Electron Identification

- Need to add benchmarks to electron finder → **Work progressing (Next Slides)**
- Will tie in with background effects ASAP

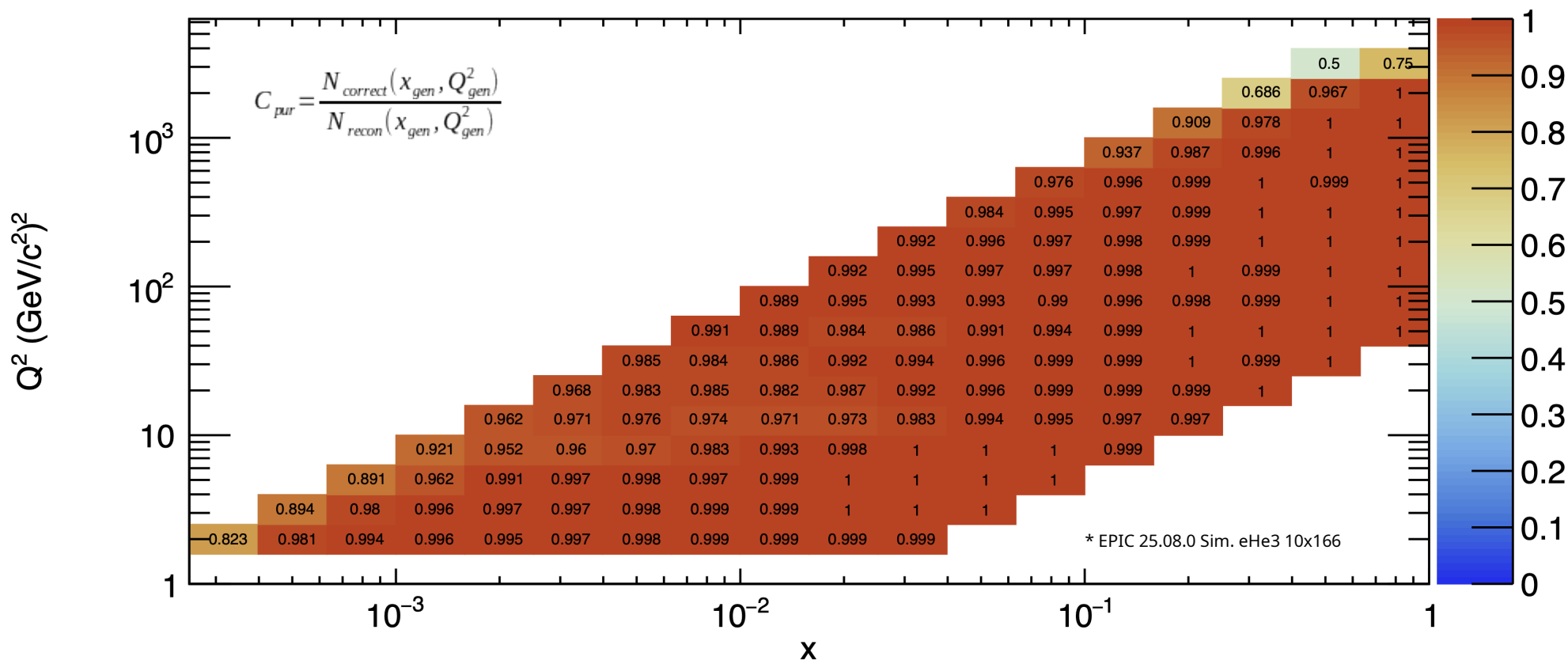
■ Section 4.4.1 Inclusive Processes

- “Merge figs 4.5, 4.6, 4.7 into one plot showing all energy configs simultaneously (where there is an overlap of errors show that we can control systematics that way)”
 - **Aim to update comparison to newer PDF set than HERAPDF2.0 and show PDF uncertainties**
- “Add a bin migration plot”
 - Decided on purity plot → **Should this use the radiative Djangoh sample?**
- “Link and make clear systematics used in plots throughout the text”
- “Fill section 4.4.1.3 (background effects)”
 - **Electron finding work to tie in** → add minimum number of track measurements to electron finder and evaluate impact



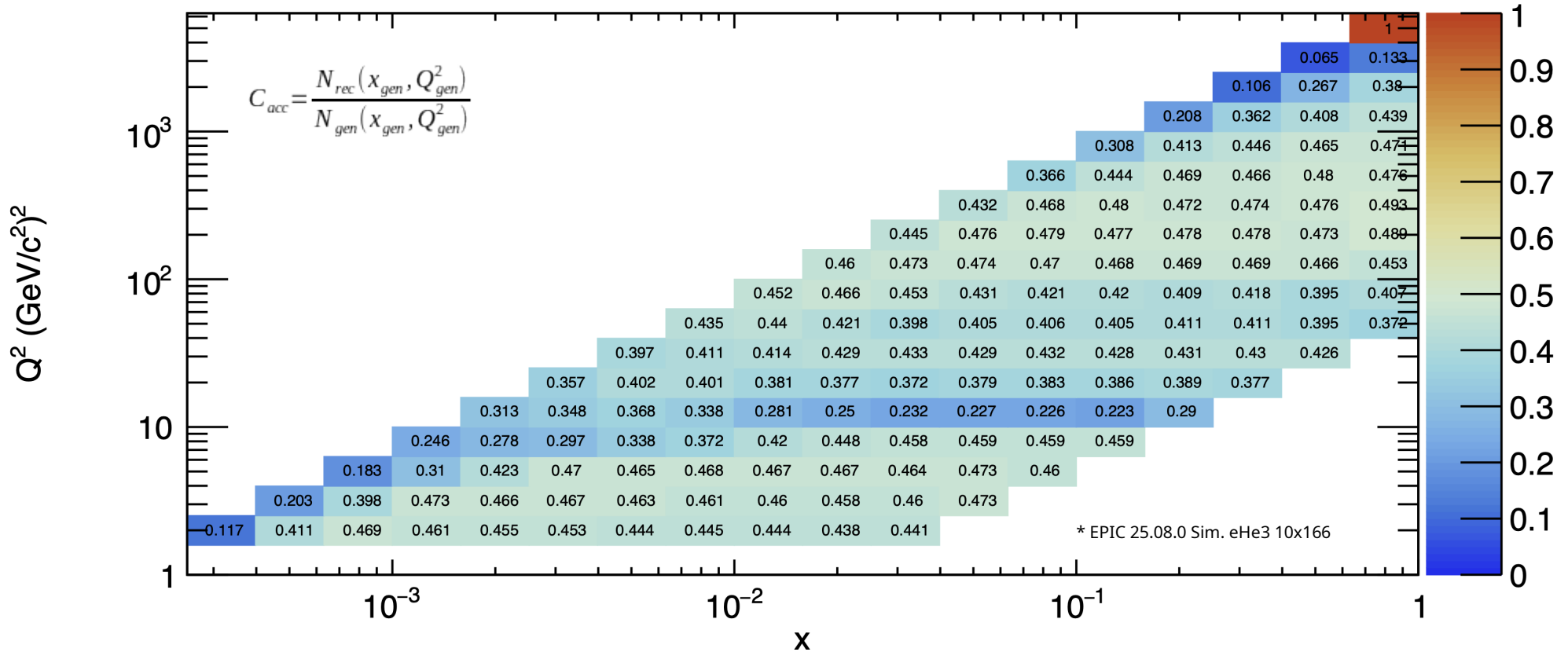
Performance plots for eID

■ Purity of eID



Performance plots for eID

■ eID Acceptance

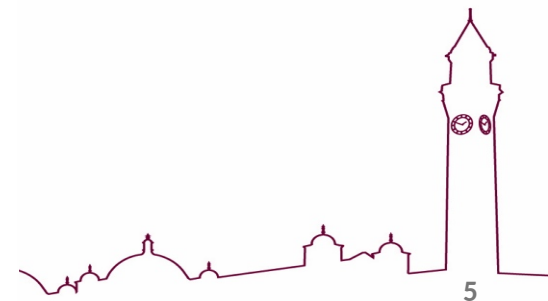
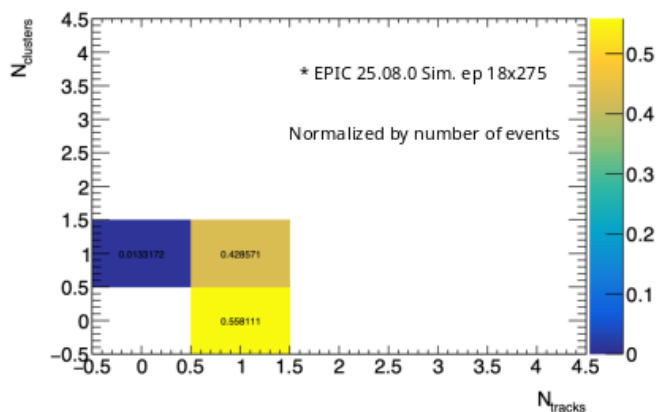
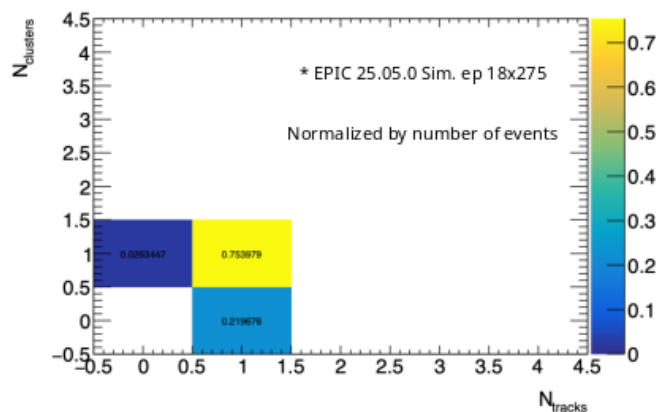
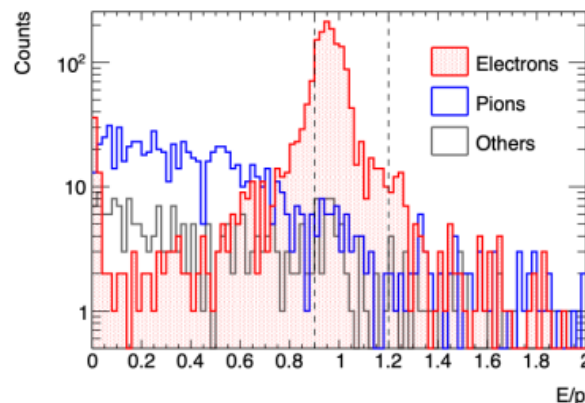
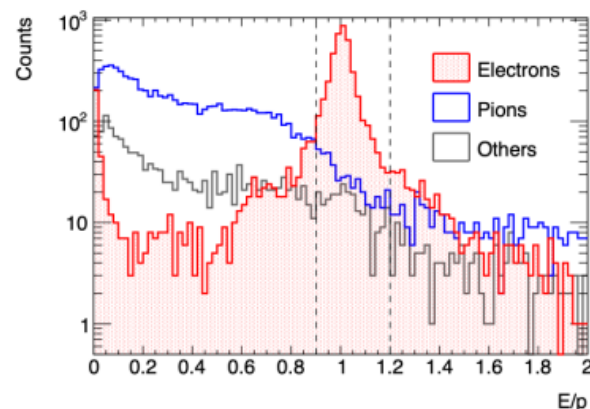


Performance plots for eID

- E/p distribution changed between campaigns? >25.08 centred on ~ 0.95
- Many electrons (and other particles) are missing clusters

W. Lin (SBU)

Benchmarks in place:
once features are
understood/accounted for
we can evaluate w/
merged background
sample



Radiative Corrections

- Want to show consideration of QED radiative effects in pTDR
- Just showing the size of the radiative corrections doesn't tell us that much about the detector
- Would like to show relationship between radiative effects and $E-p_z$ cut through either:
 - comparing bin purity with radiative/non-radiative events w/ and w/o $E-p_z$ requirement
 - Showing attenuation of high energy ISR w/ the cut (bottom plot)

