

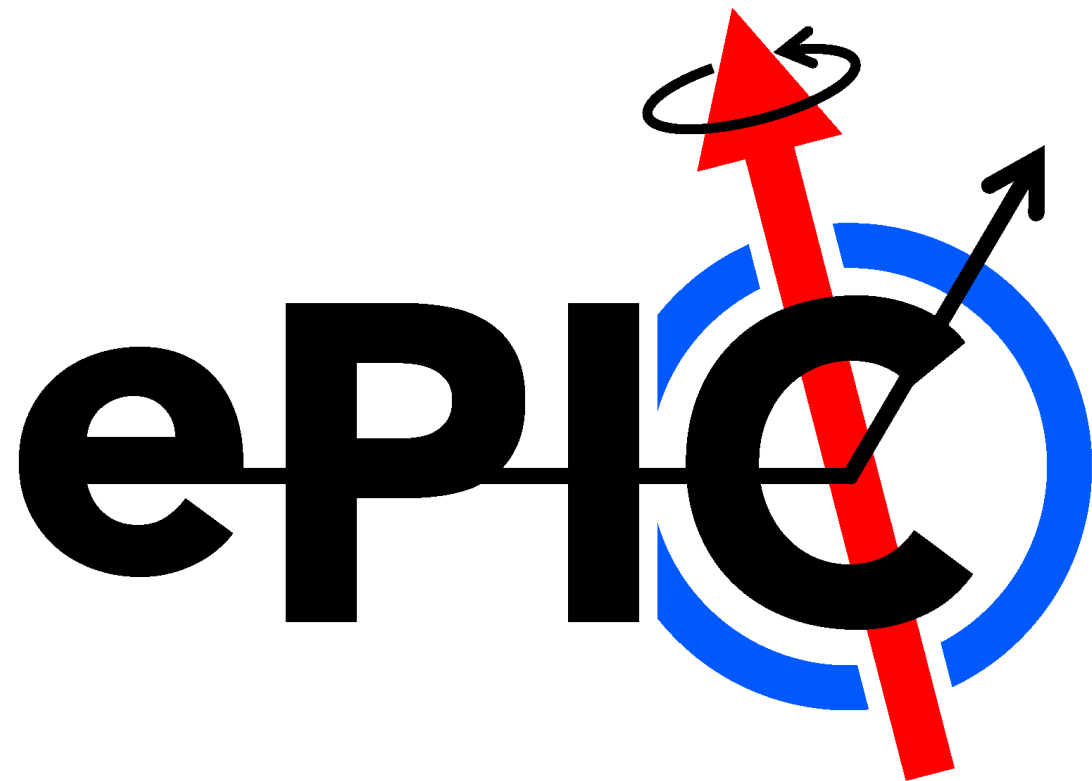
Inclusive PWG update

All simulation results shown use
Pythia8 NC DIS 10x100 GeV, $Q^2 > 100 \text{ GeV}^2$ from 23.09.1 campaign

Claire Gwenlan, **Tyler Kutz**

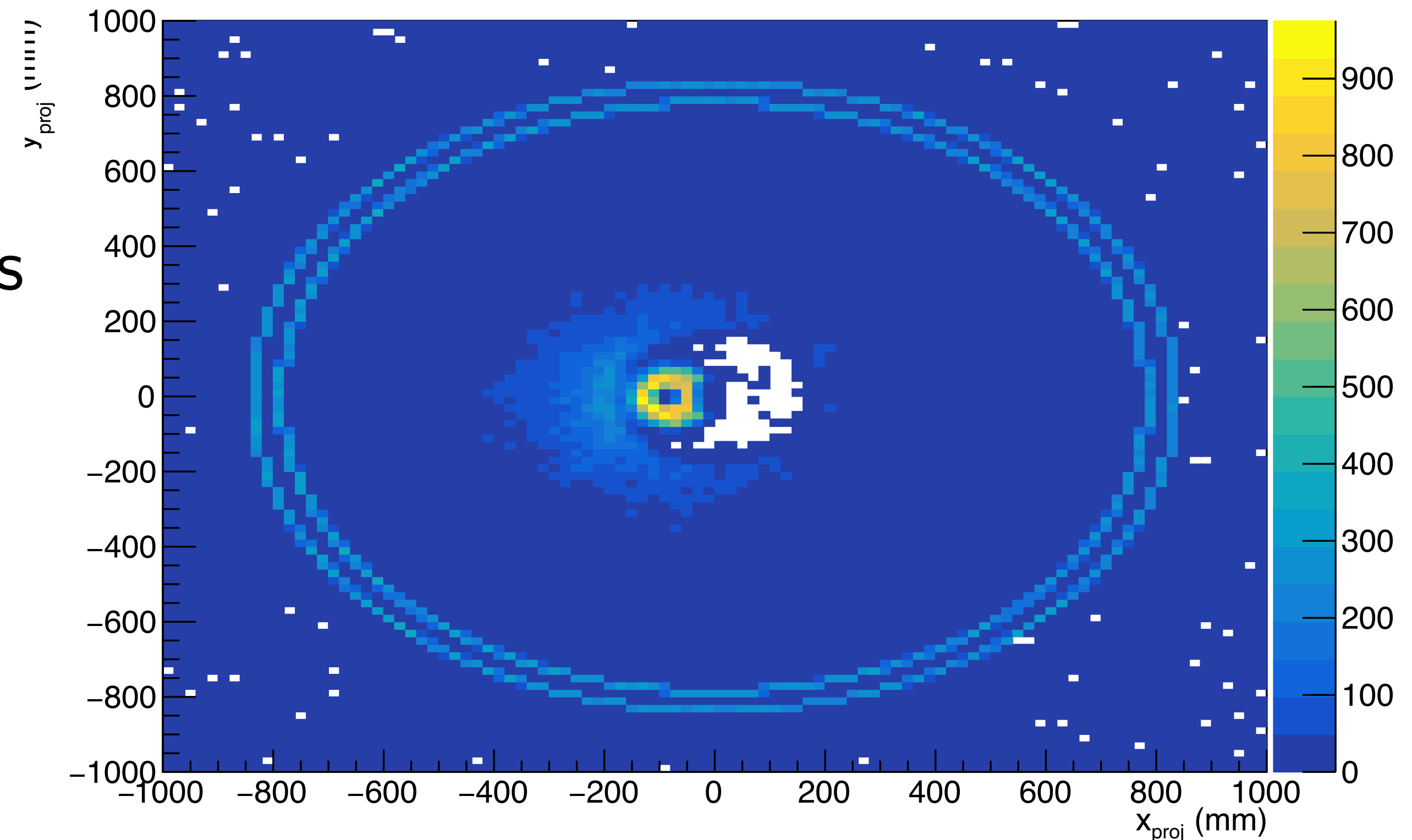
ePIC analysis meeting

September 29, 2023



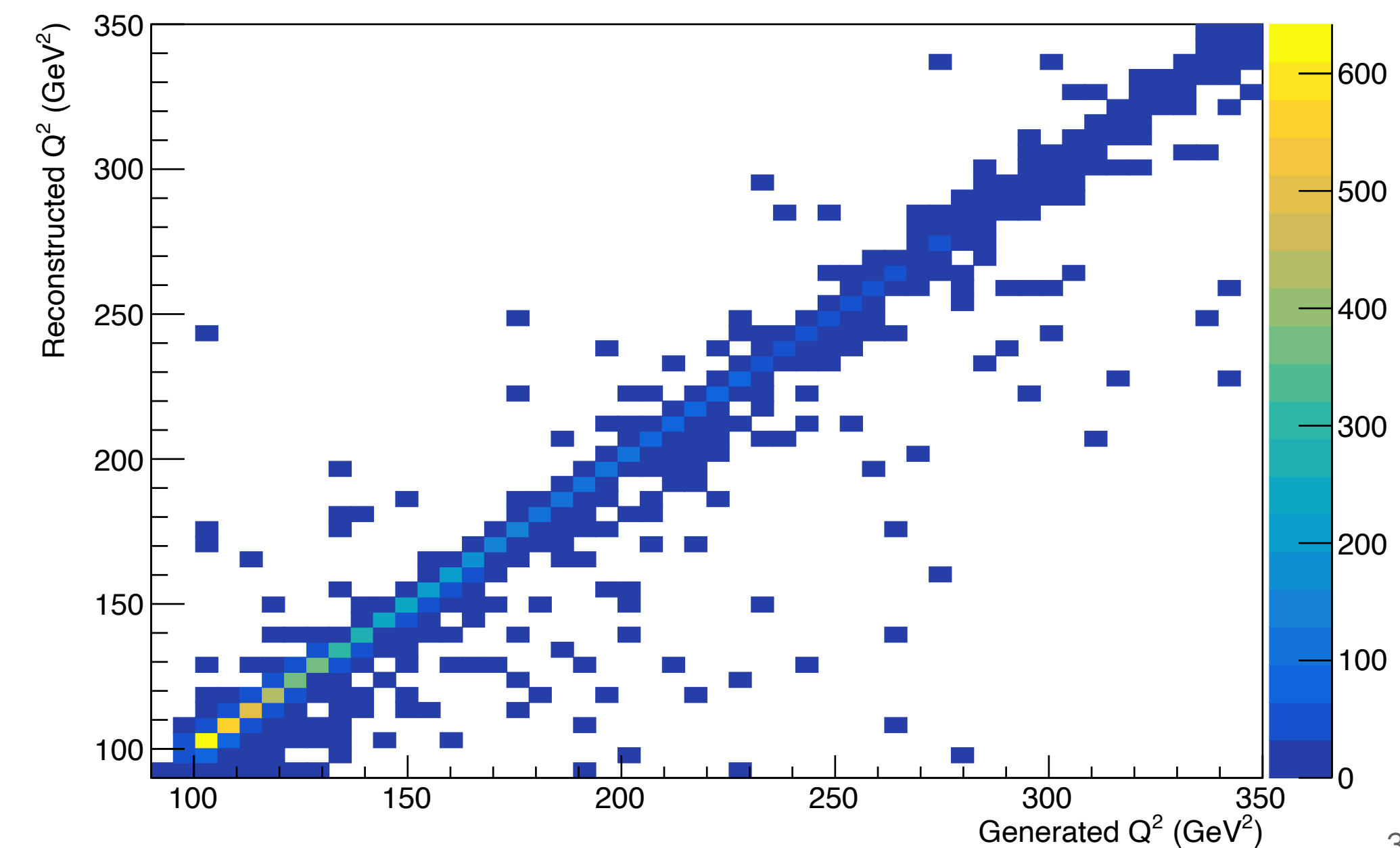
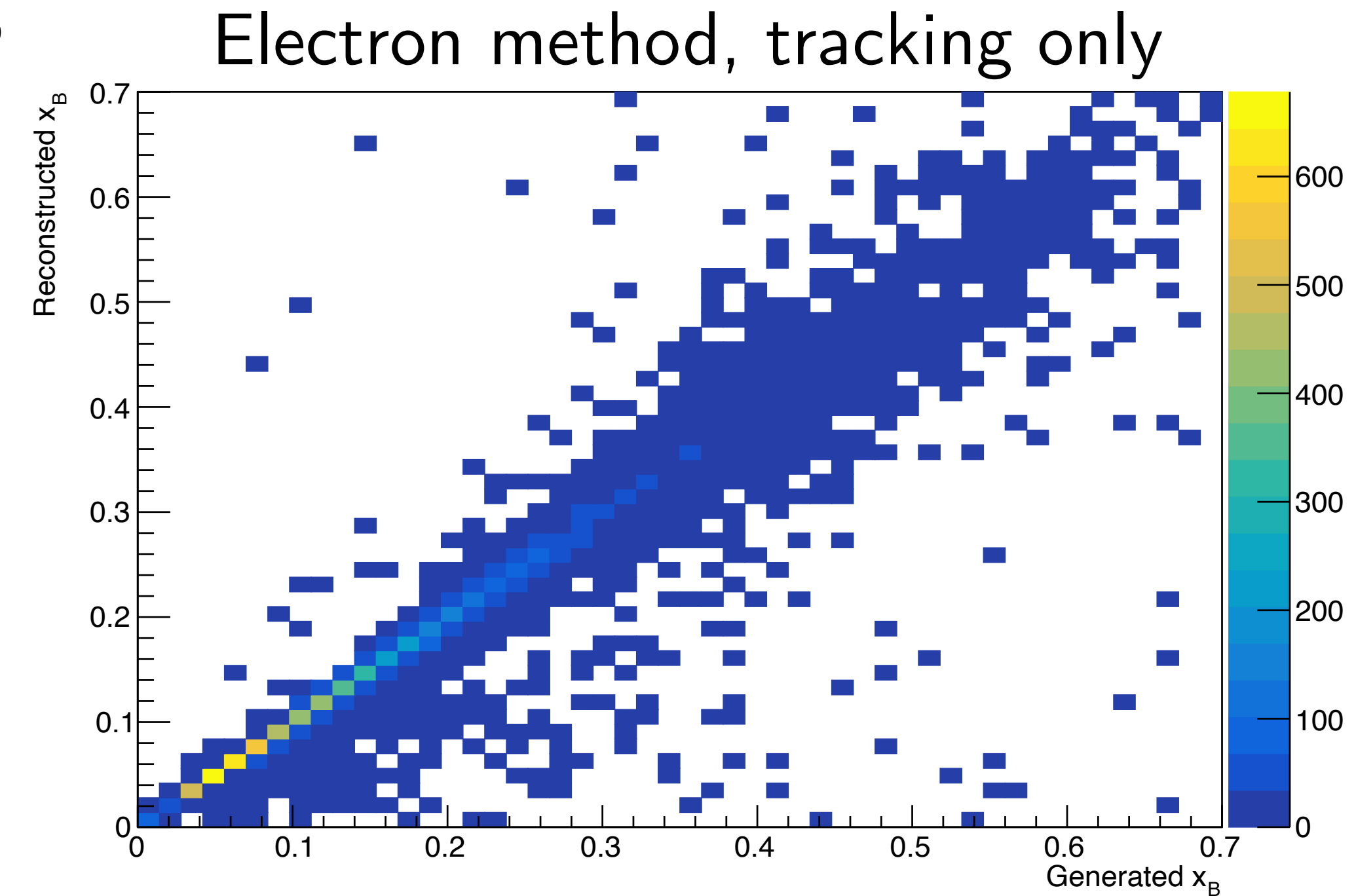
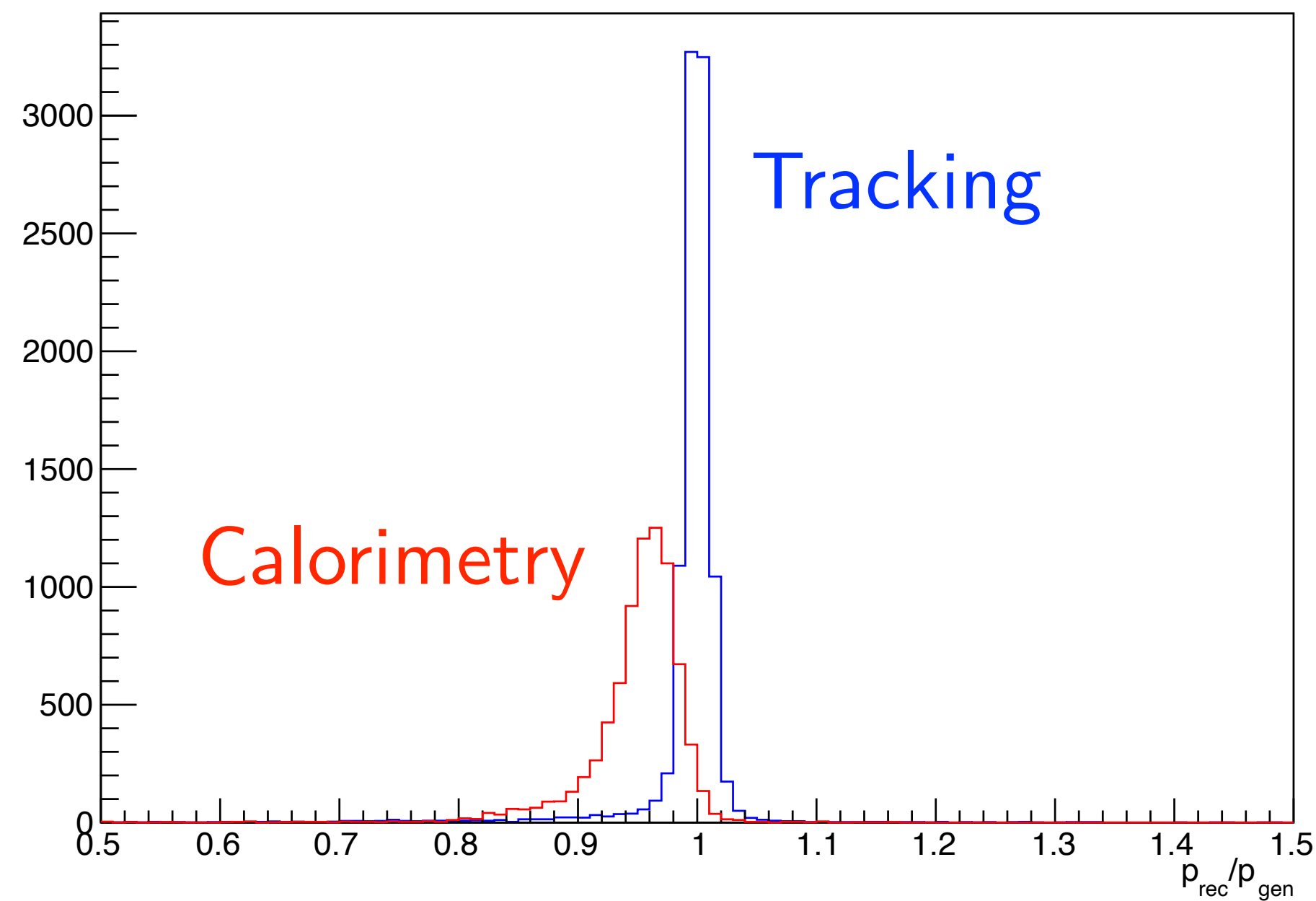
Track projections

- Track propagation factory included in September campaign
- Track-cluster matching studies in-progress
- Open issues:
 - Associations between track and projections not implemented
 - Need to address material maps issue



Benchmarks for physics simulations

- Developing benchmarks for DIS (vs. single-particle) events
- Calorimeter resolution looks worse than in single-particle events
- Also adding kinematic resolutions to benchmark macros



Current tasks

- Track associations for track projections
- Material map for track projections
- Track-cluster matching
- Further develop benchmarks:
 - Add additional reconstruction methods
 - Quantify resolutions (e.g. Gaussian fits or RMS)
 - Momentum resolutions binned in (p, η)
 - Kinematic resolutions binned in (x_B, Q^2)
- Look into where things aren't doing so well (i.e. calorimeter clustering)
...how can we improve?