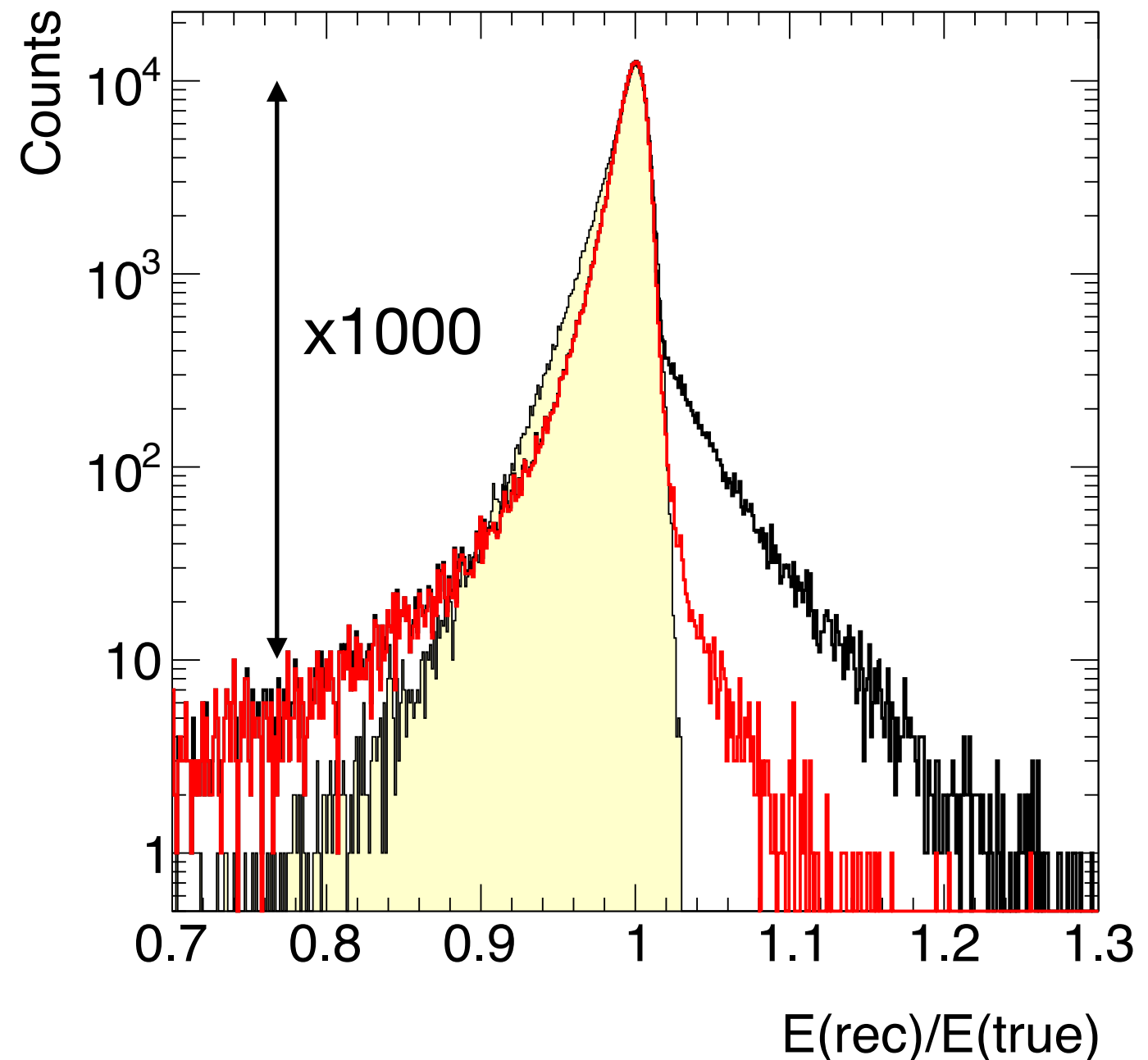


ECCE exclusive J/psi

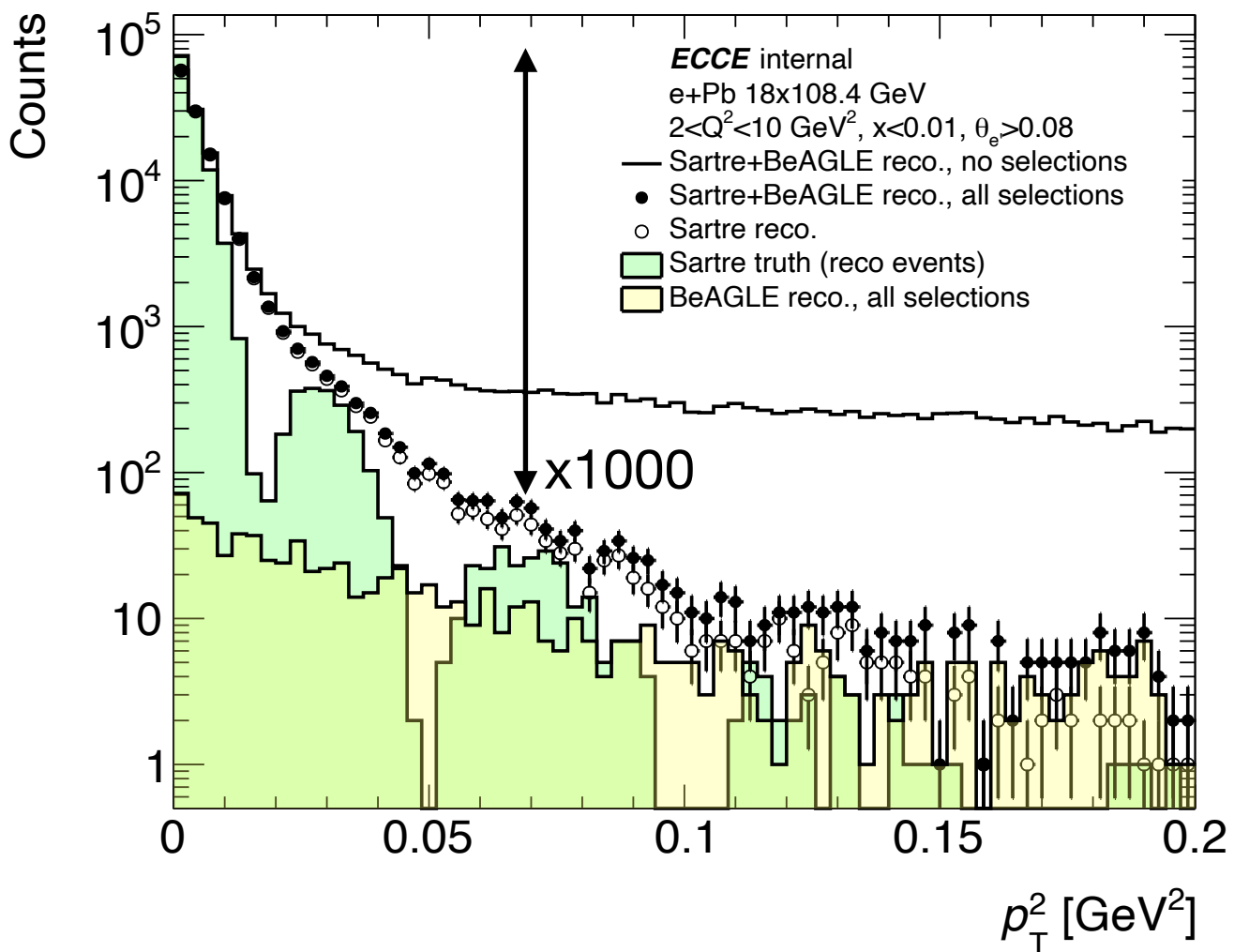
Peter Steinberg, BNL / ECCE diffractive & tagging / 9 December 2021

New simulations

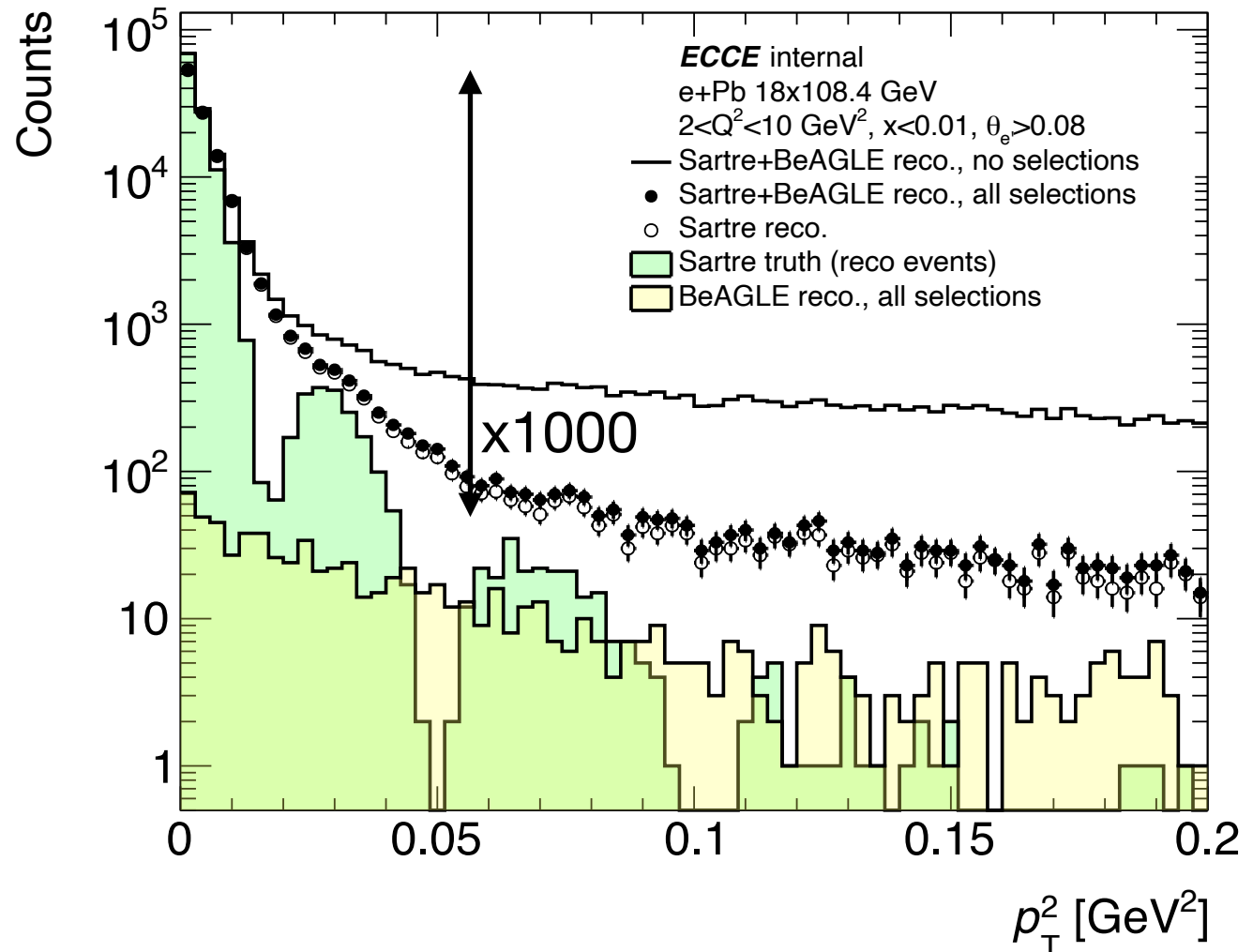
- **Thanks Bill for producing sartre e/ μ in IP6/IP8!**
 - All studies in IP6/ μ version
- **Fluctuations are generally much better now**
 - Yellow - Crystal ball fit I made from Fredi's sims, used for final proposal plot
 - Black/red - clusters from new simulations
 - Red - require only one cluster near electron
 - Black - sum all clusters near electron (old approach for fighting cluster splitting - now obsolete).
Creates nasty upward fluctuations
- **New simulations still have a substantial low tail**



Old and new



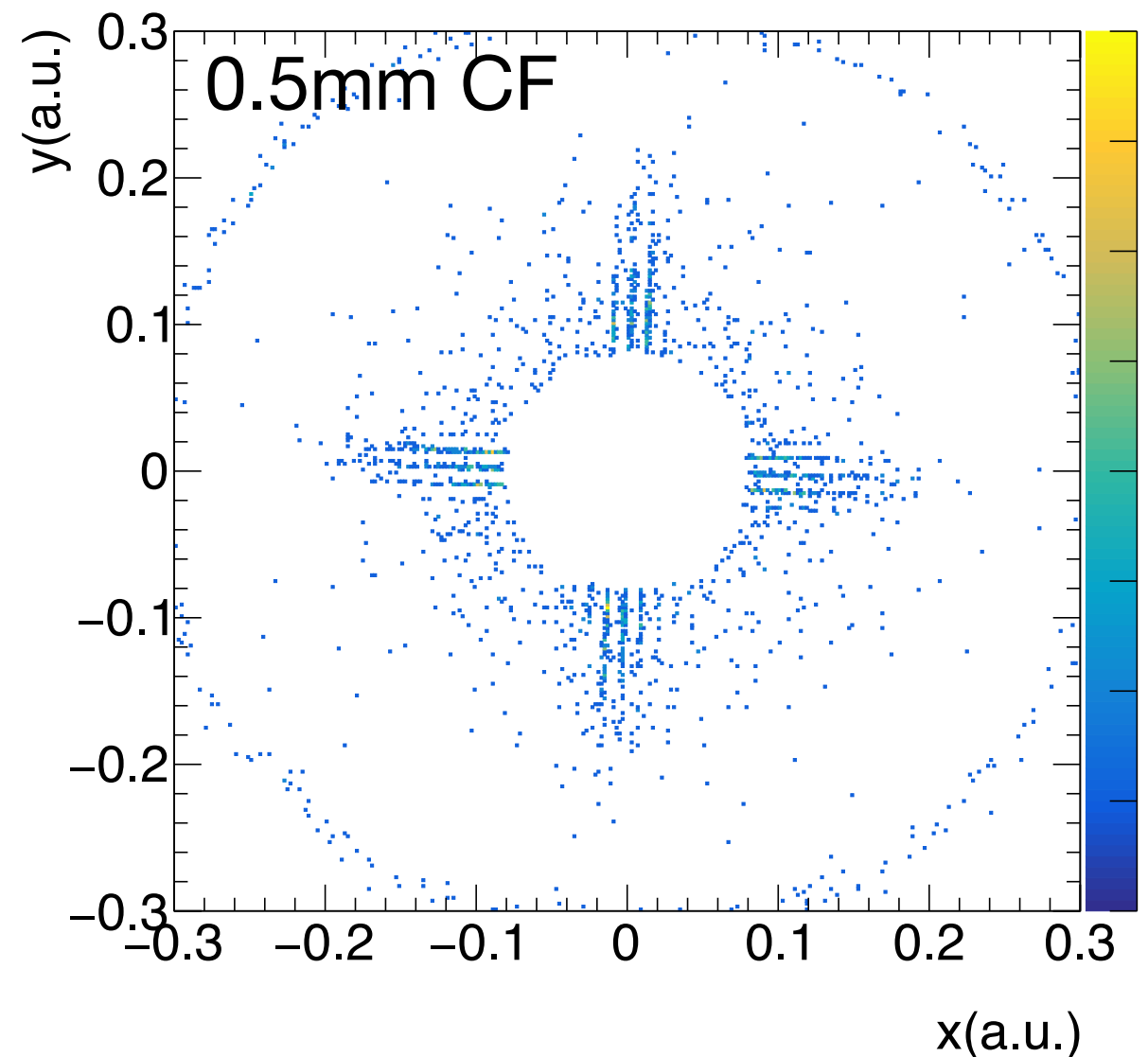
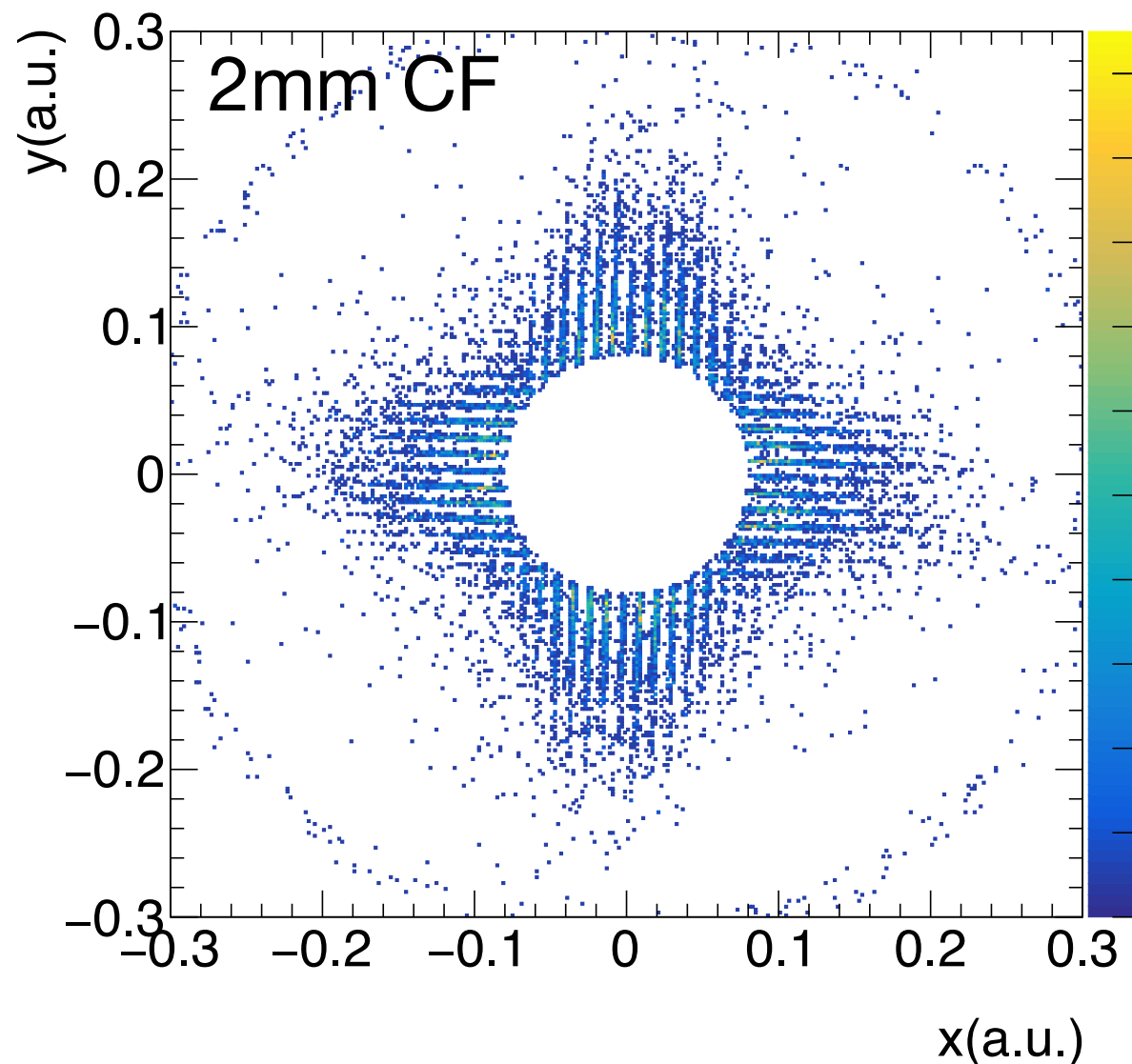
Crystal ball fit



New clusters

Tail in final result tracks tail in simulations

the fight begins...



Plot eta/phi coordinates projected onto cartesian space,
for $E(\text{rec})/E(\text{true}) < 0.9$ (twist is because of bending - I can't
find projections onto EEMC...)

should try
excluding the
bad regions

Dramatic improvement for new carbon fiber arrangement