

Fun4All on Cori

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Status & Next Steps

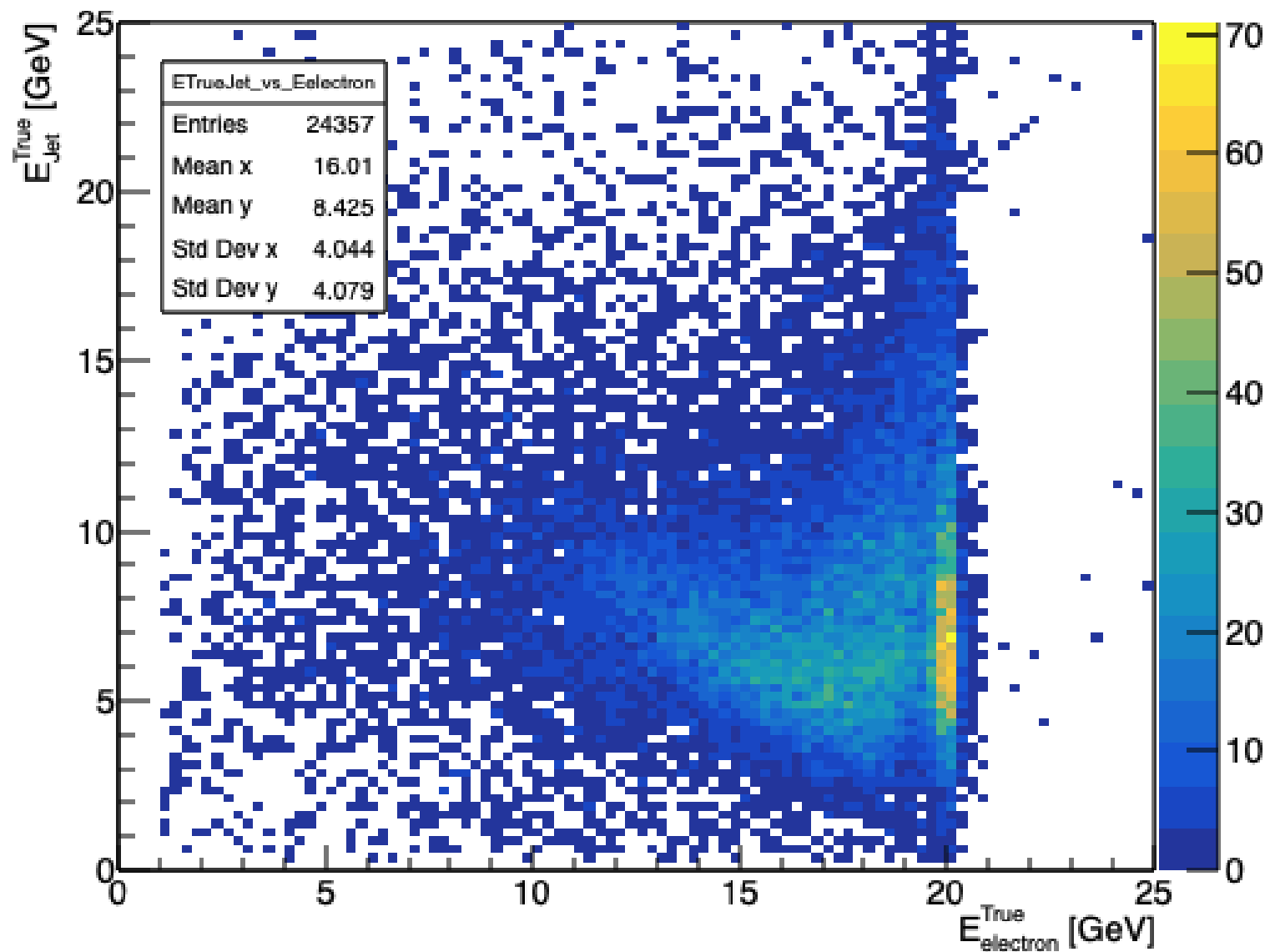
Current status:

- Can successfully run Fernando's e+p jet analysis – out of the box!
- Fernando, Winston, and Youqi were able to use Fun4All to run the event display code.
- We can run a large amount of events using the batch job system → tested by Fernando.
- Converted All-Si TGeO object to a gdml object → Thanks to Chris Pinkenburg for the conversion macro.

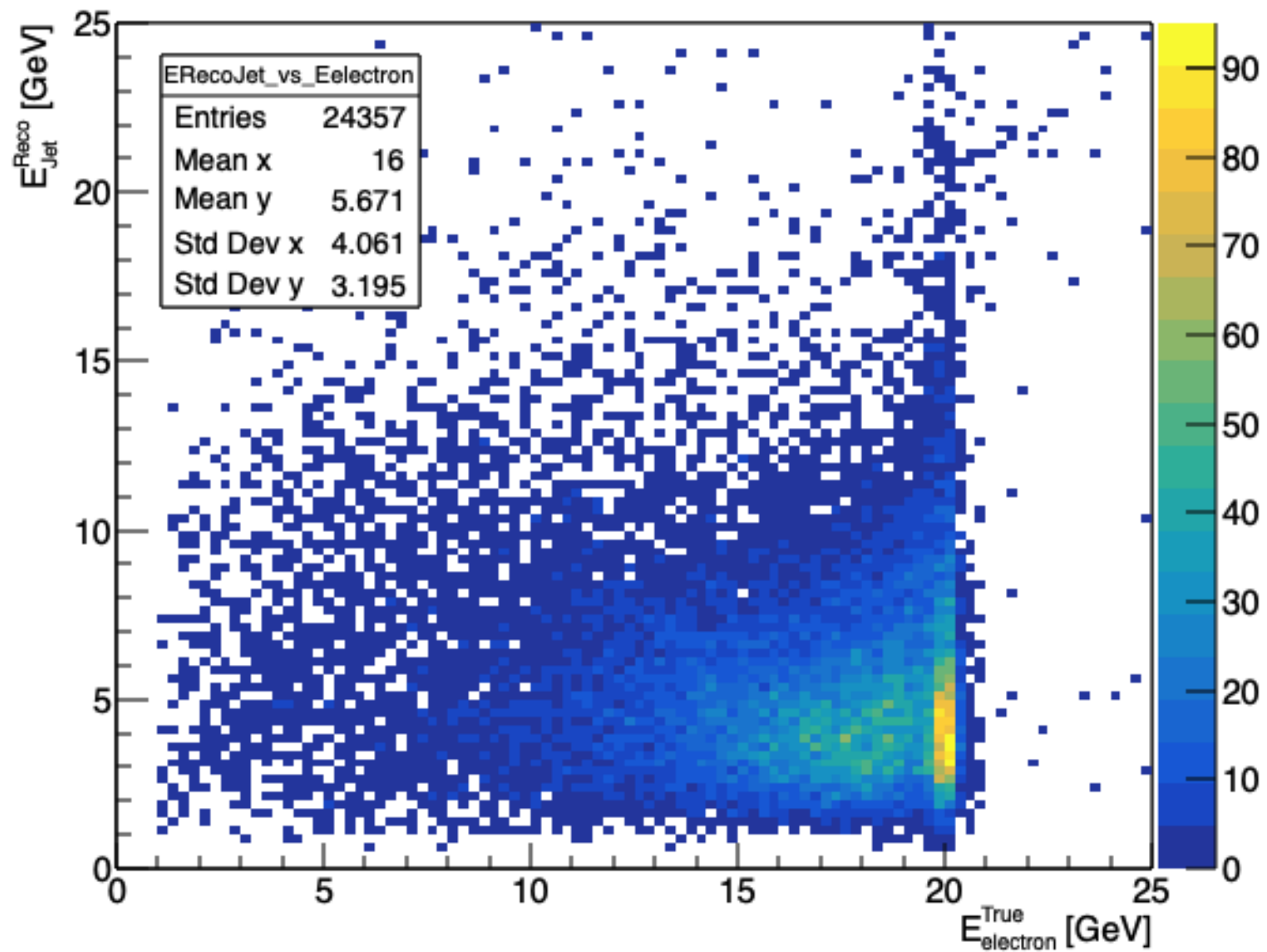
Next Steps:

- Reproduce Fernando's e+p plots (shown in the following slide)
- Insert the All-Si gdml object into Fun4All

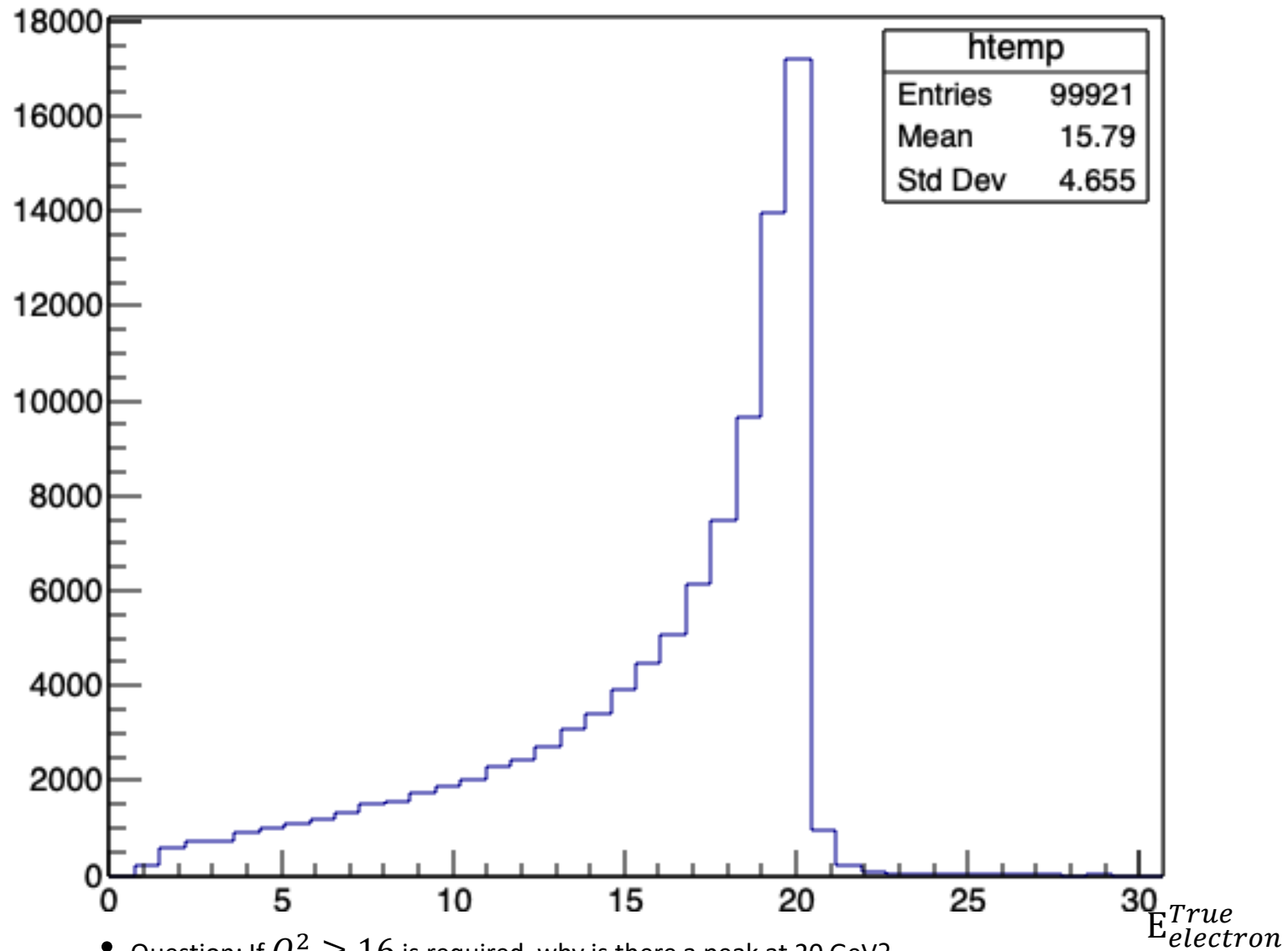
$E_{\text{Jet}}^{\text{True}} (|\eta^{\text{Jet}}| < 0.7)$ vs. E_e^{True}



$E_{\text{Jet}}^{\text{Reco}} (|\ln^{\text{Jet}}| < 0.7)$ vs. E_e^{True}



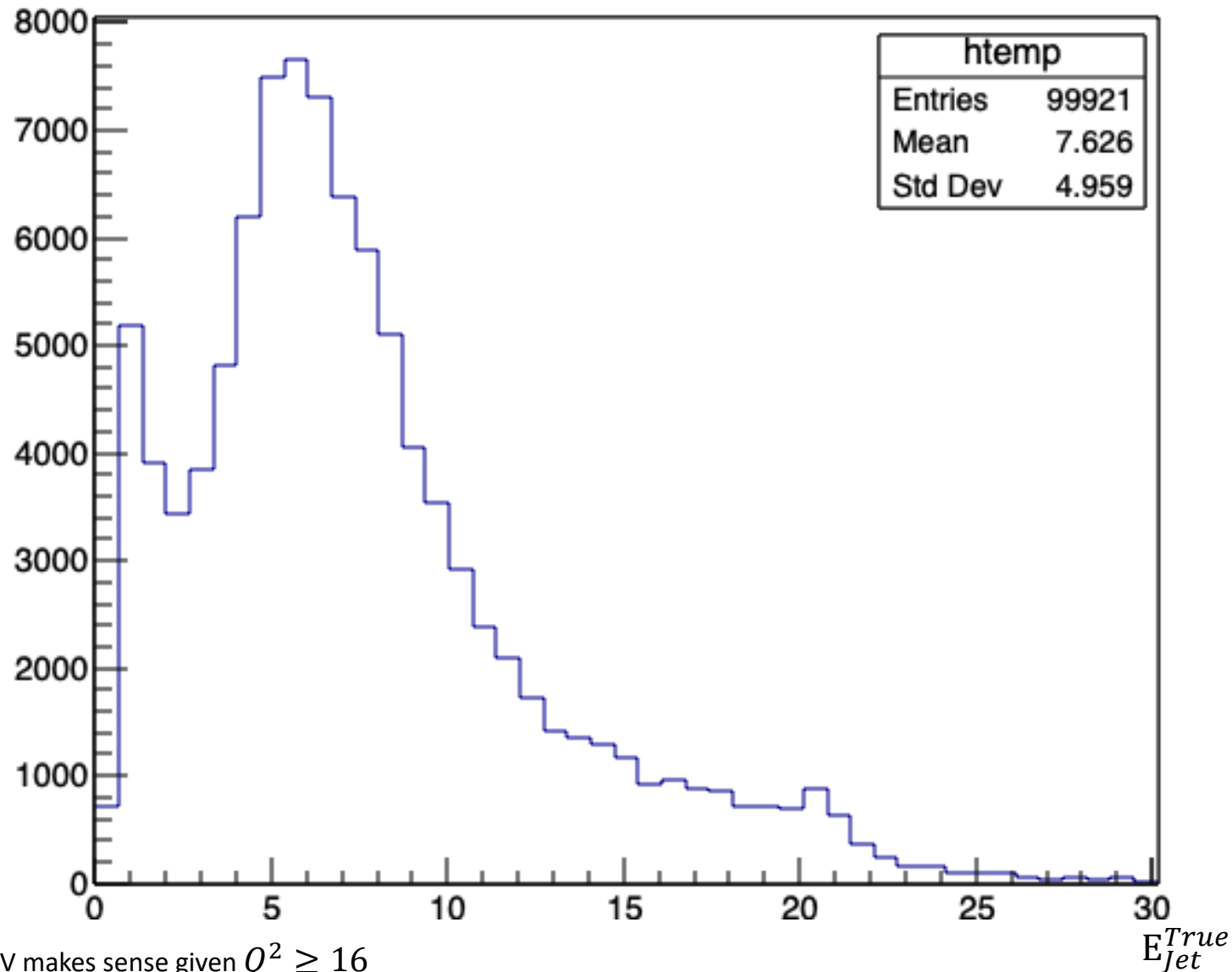
True Electron Energy



- Question: If $Q^2 \geq 16$ is required, why is there a peak at 20 GeV?
 - Why no peak at 16 GeV?

True Jet Energy

$(|\eta^{\text{Jet}}| < 0.7)$



- Peak at $\approx 4-5$ GeV makes sense given $Q^2 \geq 16$
- Is peak at 0 “noise”, or something wrong with Pythia settings?

Back Up

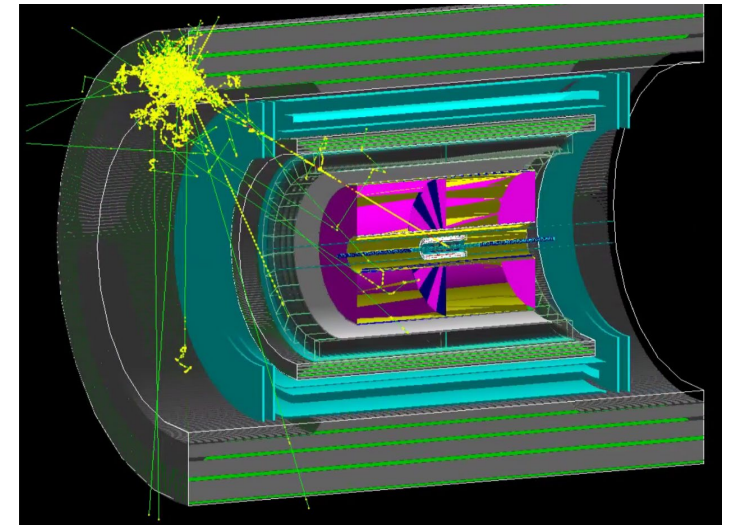
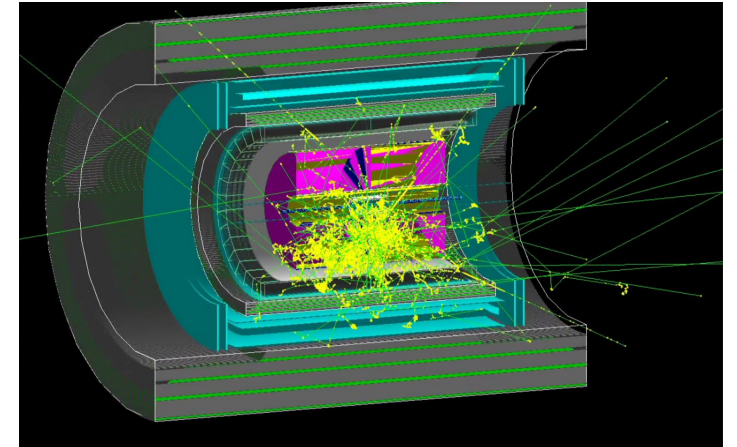
(OLD 3/17) Status & Next Steps

Current status:

- Fun4All works on Cori.
- This was tested using a small event display tutorial.

Next Steps:

- Trying to run Fernando's e+p jet analysis.
- If e+p analysis works smoothly, the plan is to switch out the SPHENIX detector with the All-Si design. Chis Pinkenburg has provided the instructions on how to do so.
- Winston is trying to get Fun4All working now. This lets us test if there are user specific changes we need to worry about while setting up Fun4All.



Two different event displays created using Fun4All on Cori.