

Exclusive e+Au Phi Update Aug 20, 2021

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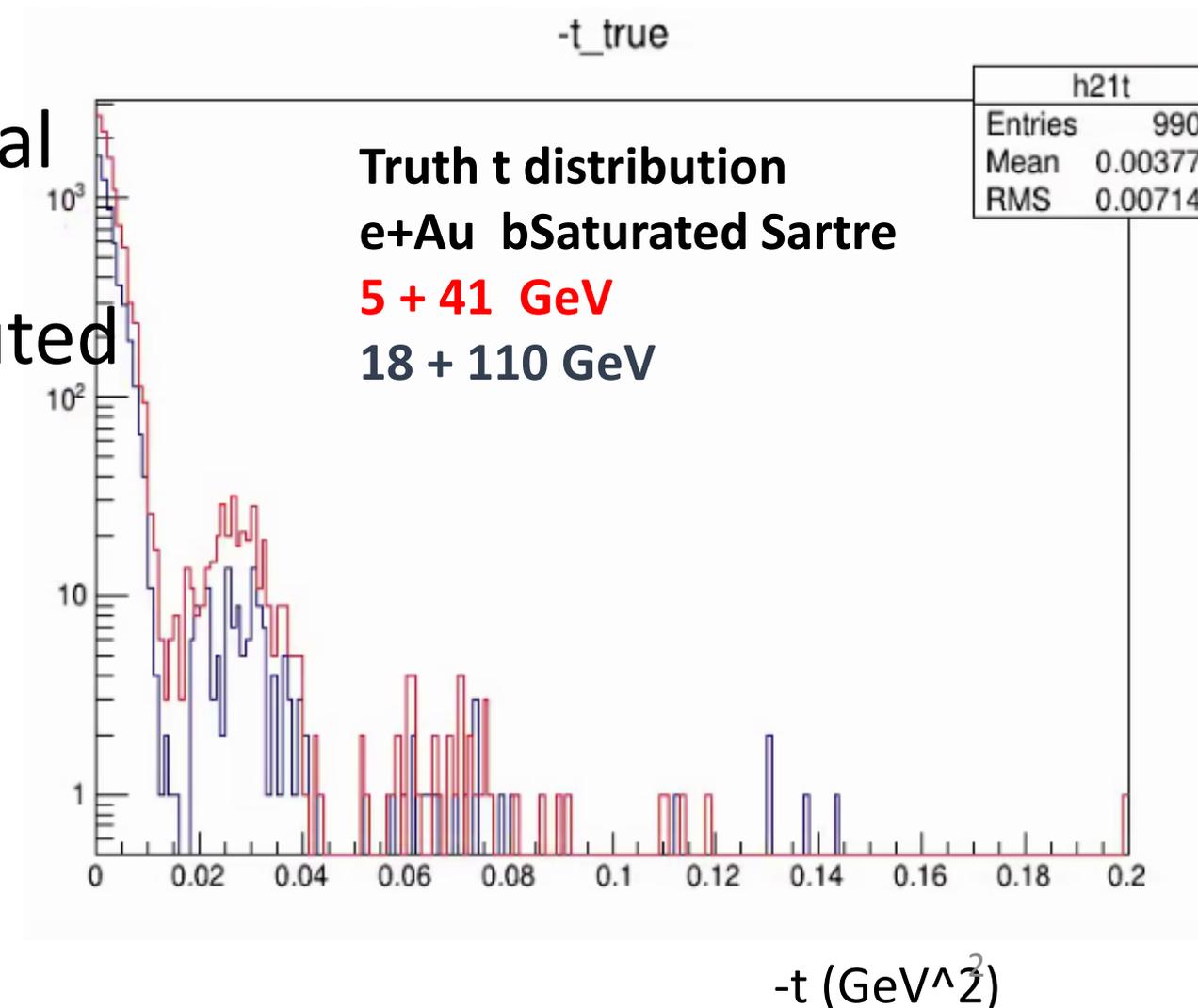


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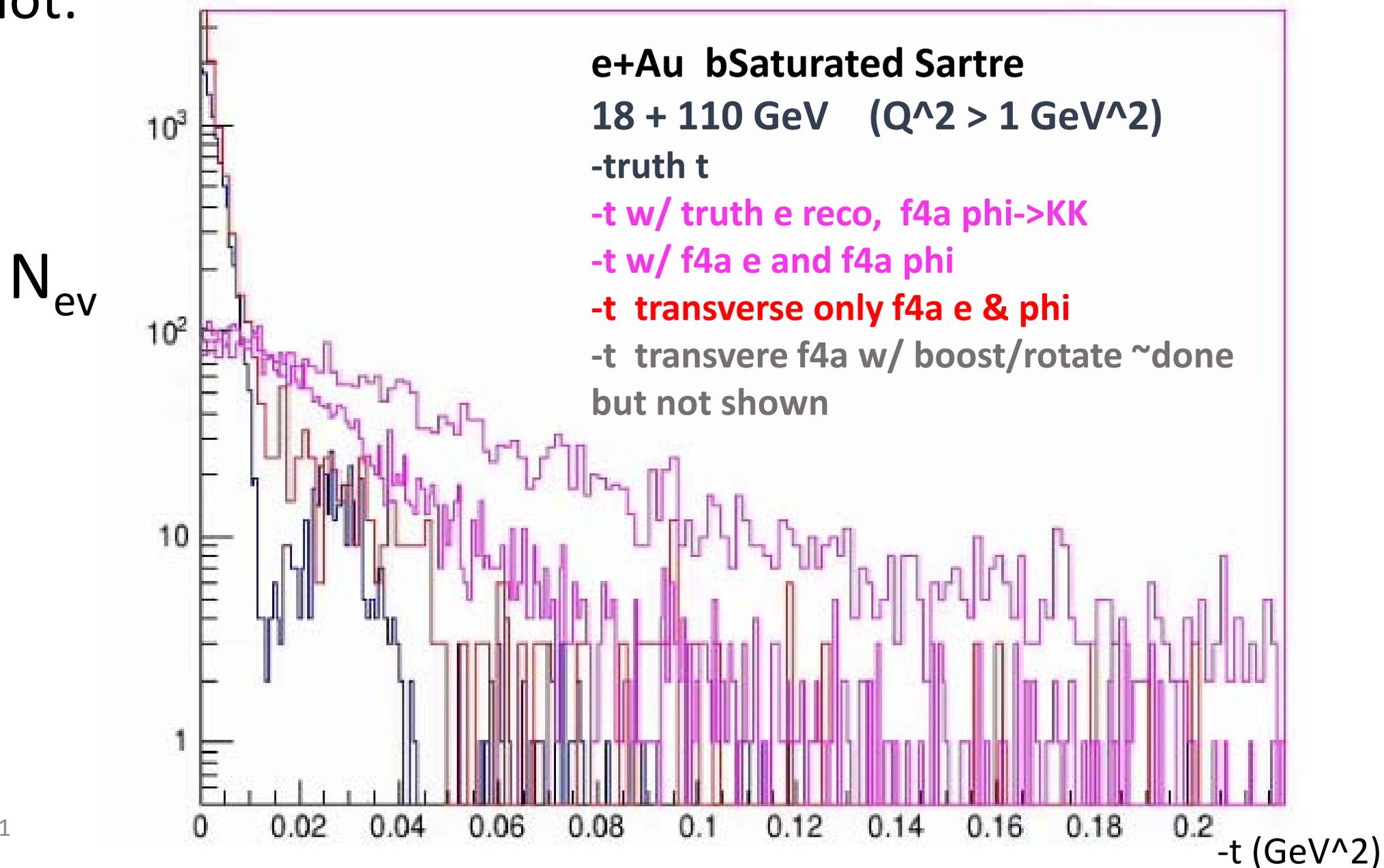
Status of eA Phi (& J/Psi)

- (Peter and I met and are working a little more closely together)
 - Prep'd (running) and will github my DST ana module today for Peter
 - Using both event_tree and DST compatible ana module
- Steady progress since past few updates
- Have full machinery for generating e+Au signal
 - e+Pb and e+Zr in Sartre (tables) under constr.
- Test samples (10 K events) made with distributed jobs (~30 minutes per 100 events fun4all G4)
 - 5 on 41 GeV & 18 on 110 GeV
- Background File from BeAGle
 - Just got the first sample of e+Zr from Mark Baker this morning! We will ask him for e+Au



Various Improvements to t distribution

- Various improvements on t reco presented by Peter previously for “money plot” signal plot:



Outlook

- Signal plots have no FWD/BKWD detector selection cuts; Peter is working on this
- No PID real or “self smeared” for Kaons or electron (electron ID truth match)
- Added $J/\Psi \rightarrow \mu\mu$ to Ana Module
- Now need to run modules over BeAGLE background files, add those to plots -- PID stuff probably will make a bigger difference
- Peter and I are working together, also Mark is helping.
- On e+Pb Sartre Peter reported he confirmed there was no progress
 - Need to check with Axel S Diff/Tag on e+Zr
- **Question:** do we also want to do something like “e+p” cross sections in e+Au? (e.g. x.s. vs Q^2 ?...) ie analyzing BeAGLE as interesting signal
 - Use Stuart’s/Marie code on BeAGLE ?