SW coordinators' report: news from meeting earlier today

→ towards 250 GeV production

problem found in lcio in latest ilcsoft version during test MC production (Akiya, Hiroaki)

- reading of LCIO files without a "table of contents"
  - affects only the single-particle validation samples
- bug found, fixed, and explicit test added (Remi)
- new LCIO tagged, now preparing new ilcsoft release (Remi)

- test production on hold until this is fixed (a few days?)

generator samples (WHIZARD 2.8.4) are ready (Junping, Mikael)

- some issues with ILD filename conventions when using WHIZARD multi-threading

miniDST: see Shin-ichi's report

taus: on next pages

tau jet finding miniDST and Delphes

WW-semileptonic sample from recent test production:

rv02-01.sv02-01.mILD_l5_o1_v02_nobg.E250-SetA.I499998.P4f_ww_sl.eL.pR.n000.d_dstm_14705_0.slcio

miniDST steering from https://github.com/shkawada/mini-DST

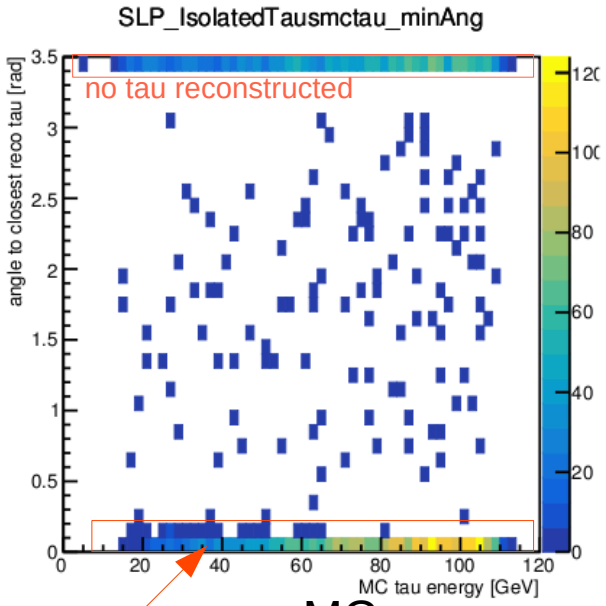
tau jet finding is run after isolated lepton (e/mu) finding
→ most leptonic tau decays will be picked up by this

2 existing tau jet reconstruction algorithms tried:

TaJet https://github.com/shkawada/mini-DST/v0
TauFinder https://github.com/shkawada/mini-DST/v1

look at angle between
each of final 3 visible MC fermions (ie no neutrinos)
and
closest reconstructed tau jet

MC tau

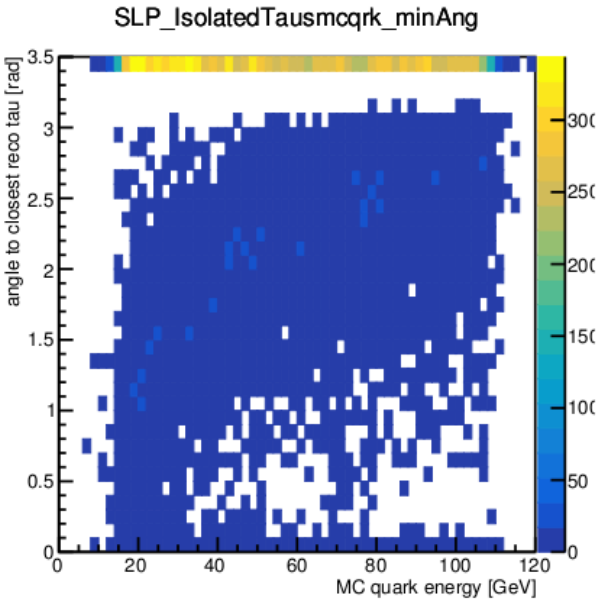


angle from MC particle to closest reco tau [rad]

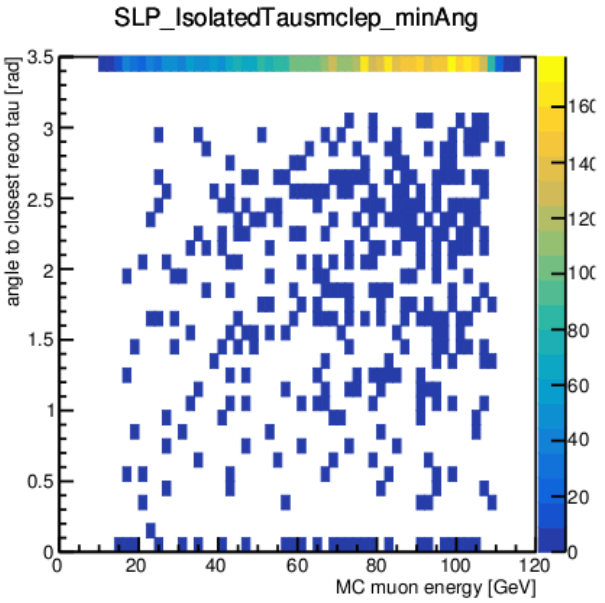
MC energy

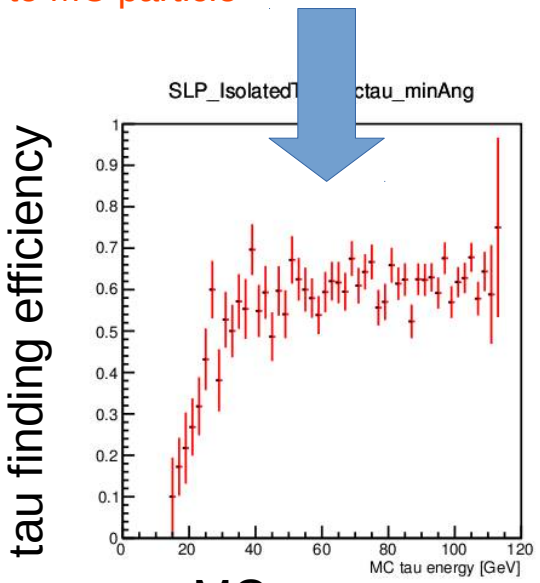
reconstructed tau close to MC particle

MC quark



MC muon



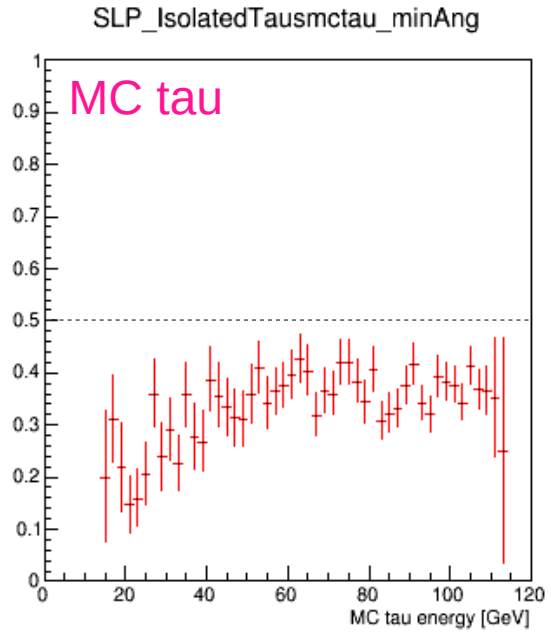


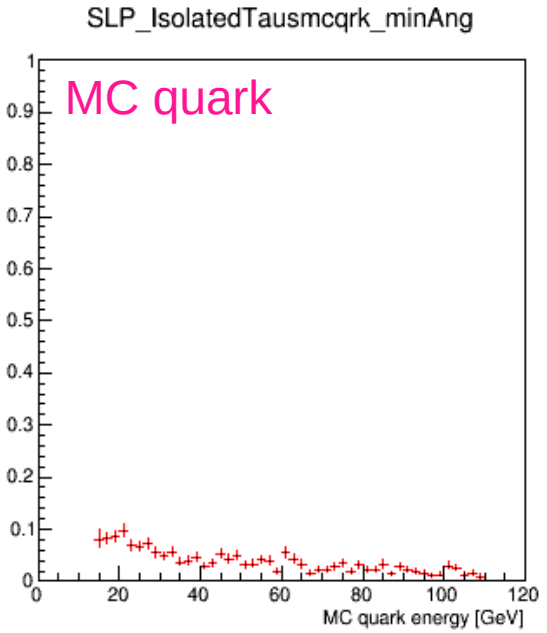
MC energy

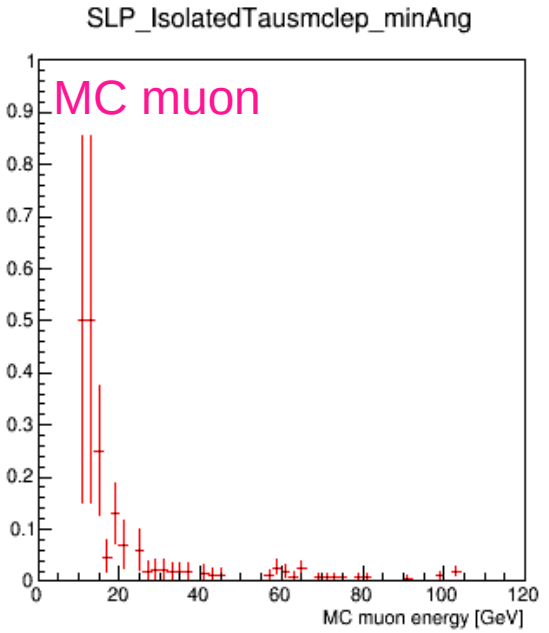
use these plots to estimate tau finding efficiency and mis-tag rates

fraction of MC fermions with reco tau jet within 0.2 rad

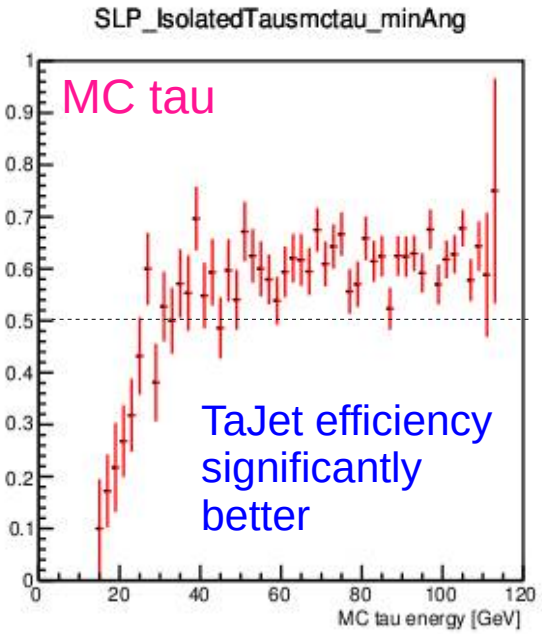
mini-DST/v1 – **TauFinder** algorithm

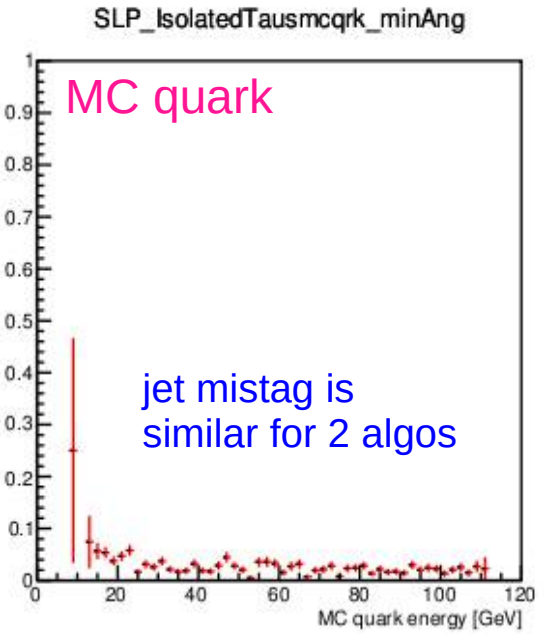


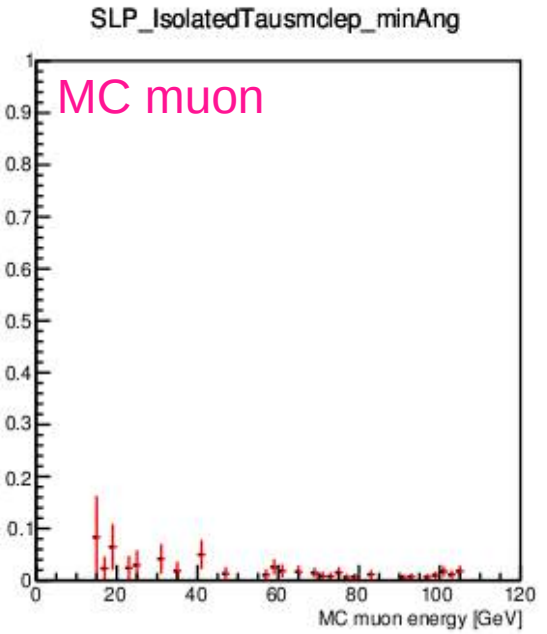




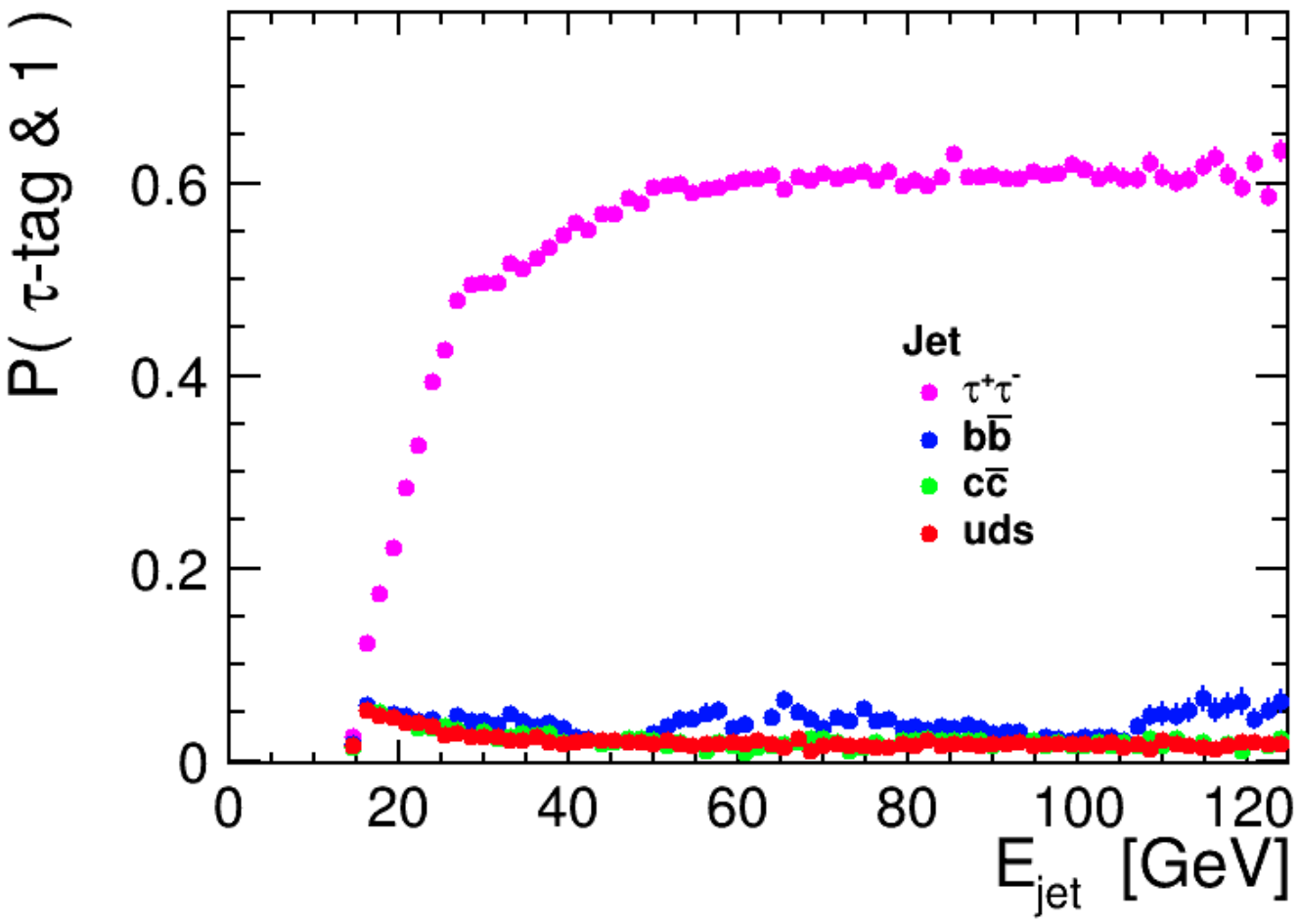
mini-DST/v0 – **TaJet** algorithm







TaJet results implemented in Delphes ILC detector model (Filip et al)



a reasonable description of general tau-finding performance