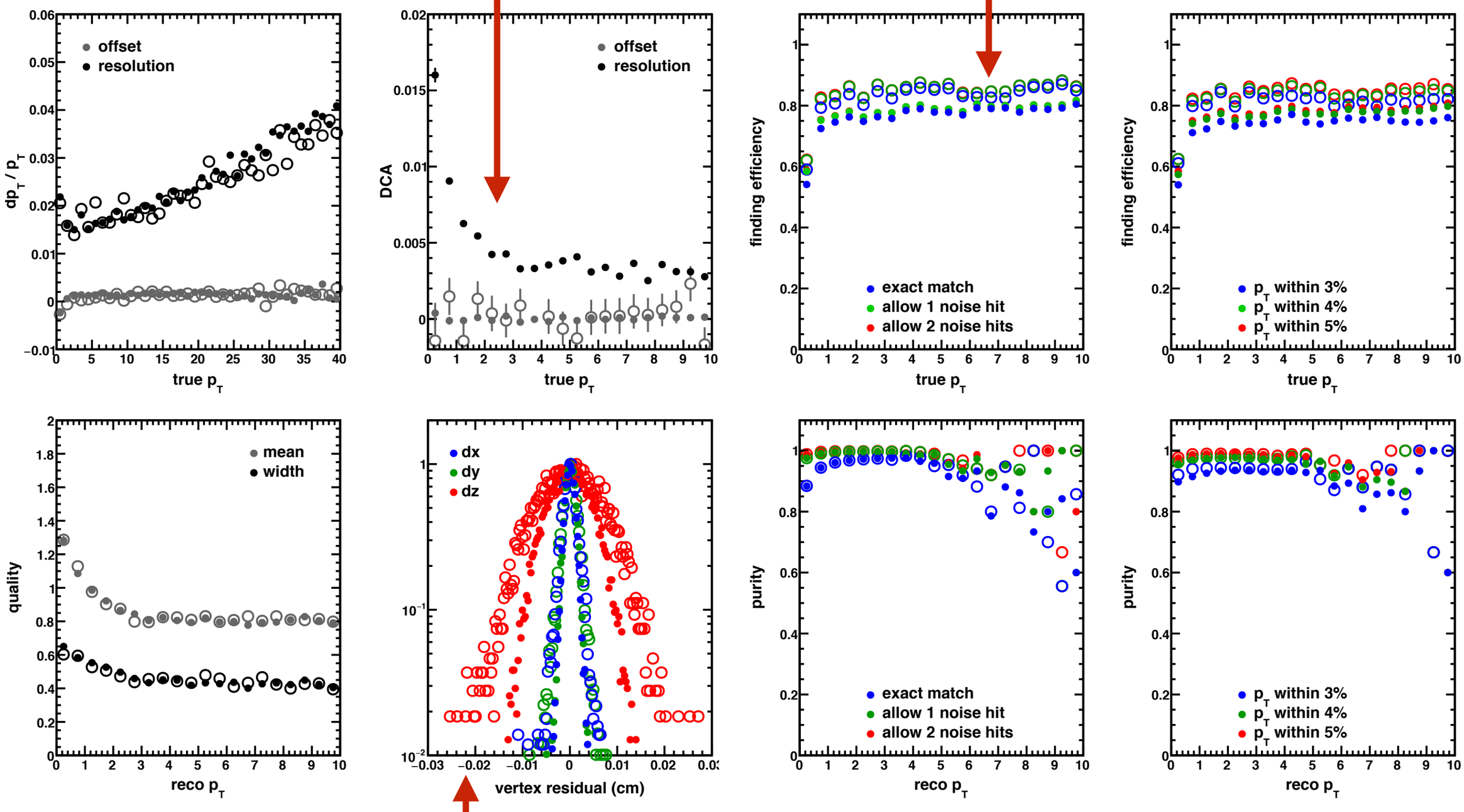
Pull Request #132

MIE code: before (open) and after (closed) patch for central events for **flat smearing (-0.05,-0.05,-5.0)**

previously dca computed against wrong position
correction has large impact on performance

initial vertex guessing code fails 20%
(follow up patch already in development)

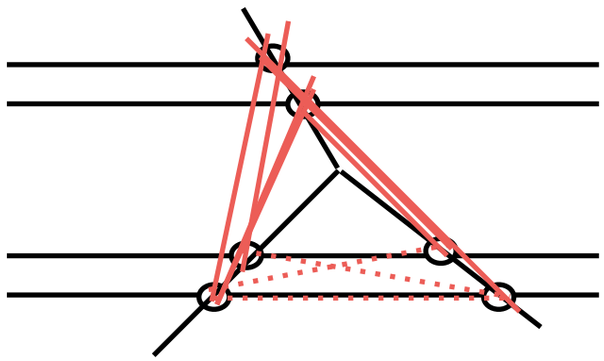


removed 100 track limit

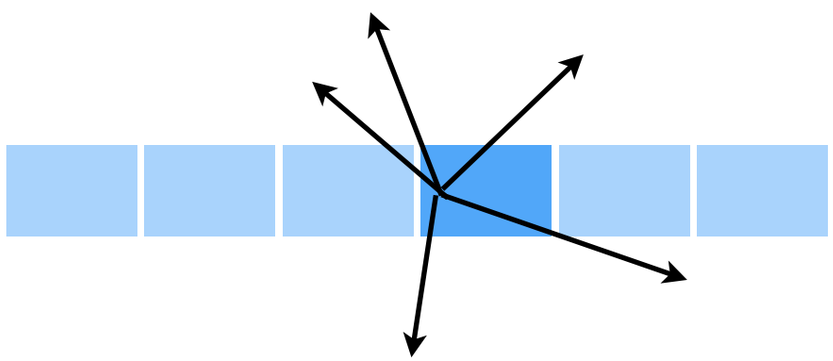
Vertex Seeding

Alan's Original Code:

(1) All Pair Projections in First Two Layers

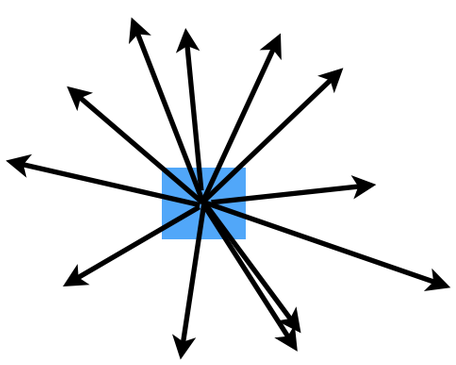


(2) Pattern Reco by Z Vertex Segment



array of search windows, each +/-1 cm, < 80 tracks

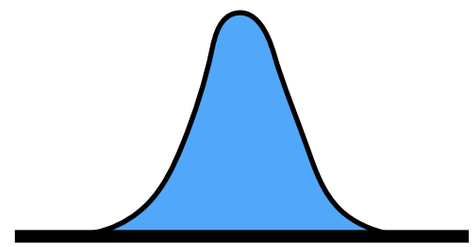
(3) Final Pattern Reco Around Vertex



search = +/-2 mm

My First Approach: better_initial_vertexing

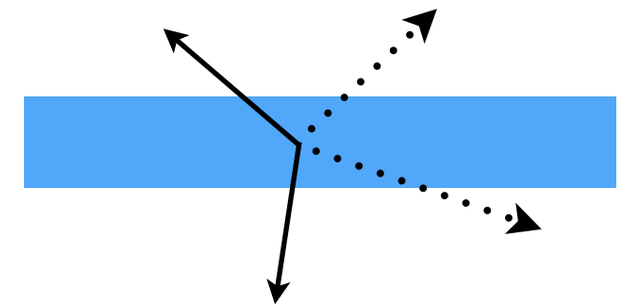
(1) Fast BBC Vertex



sigma = 6 mm

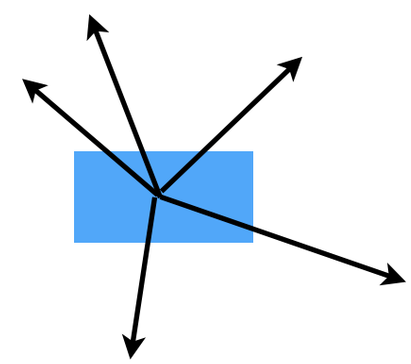
My Second Approach: svtx_only_vertexing

(1') Pair of Broad Searches



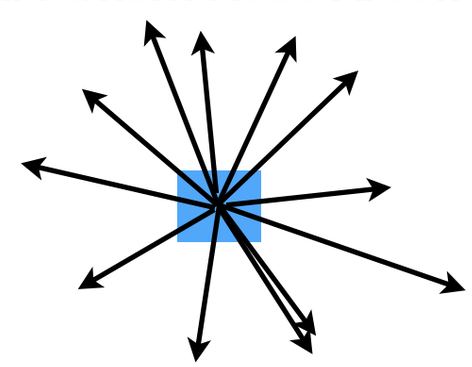
search = +/-10 cm
positive eta, negative eta
< 4 tracks each

(2) Initial Pattern Reco Around Vertex



search = +/-2 cm, < 40 tracks

(3) Final Pattern Reco Around Vertex



search = +/-2 mm

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I made a patch to fix the vertex seeding process in PHG4HoughTransform.C

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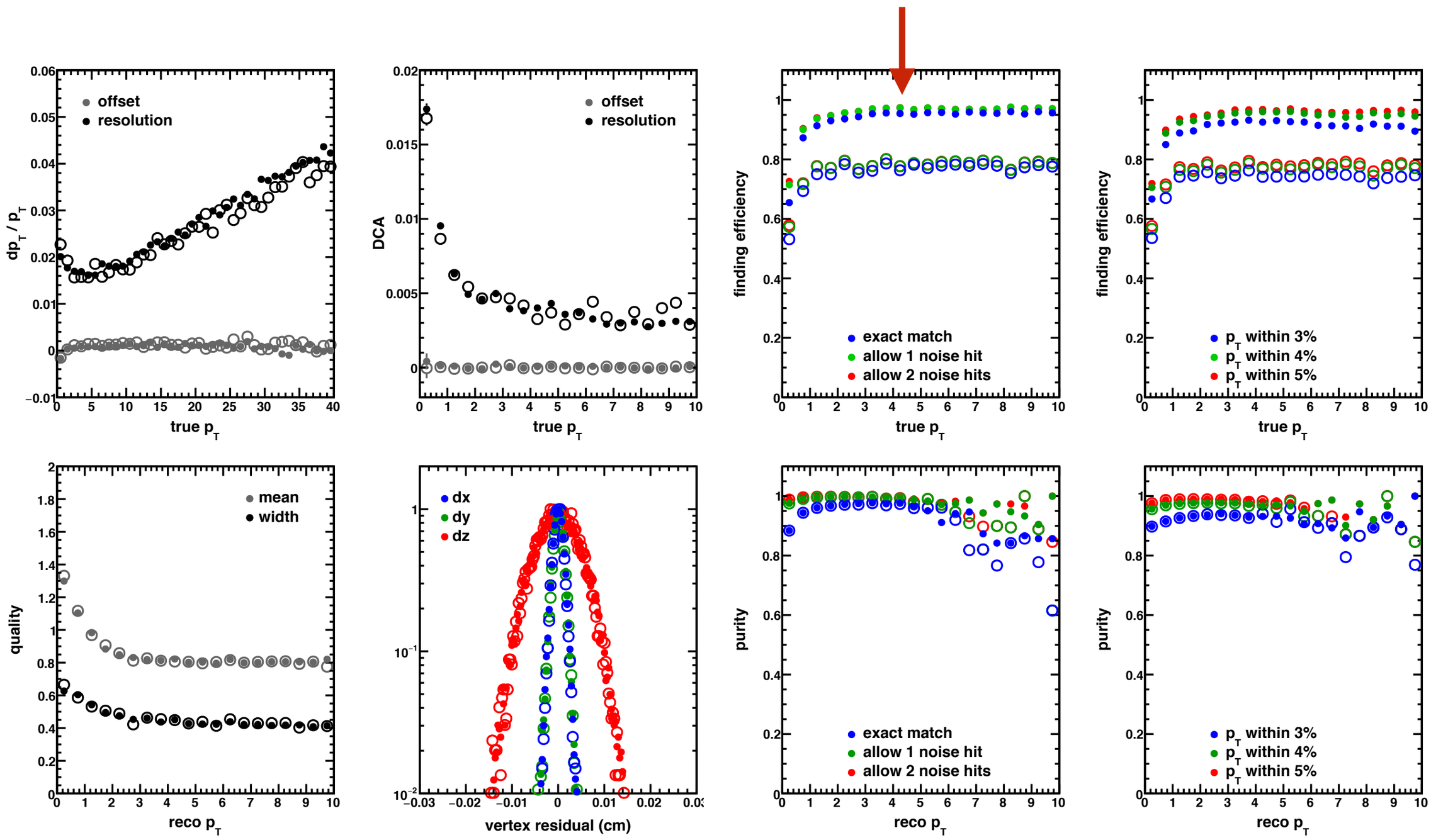
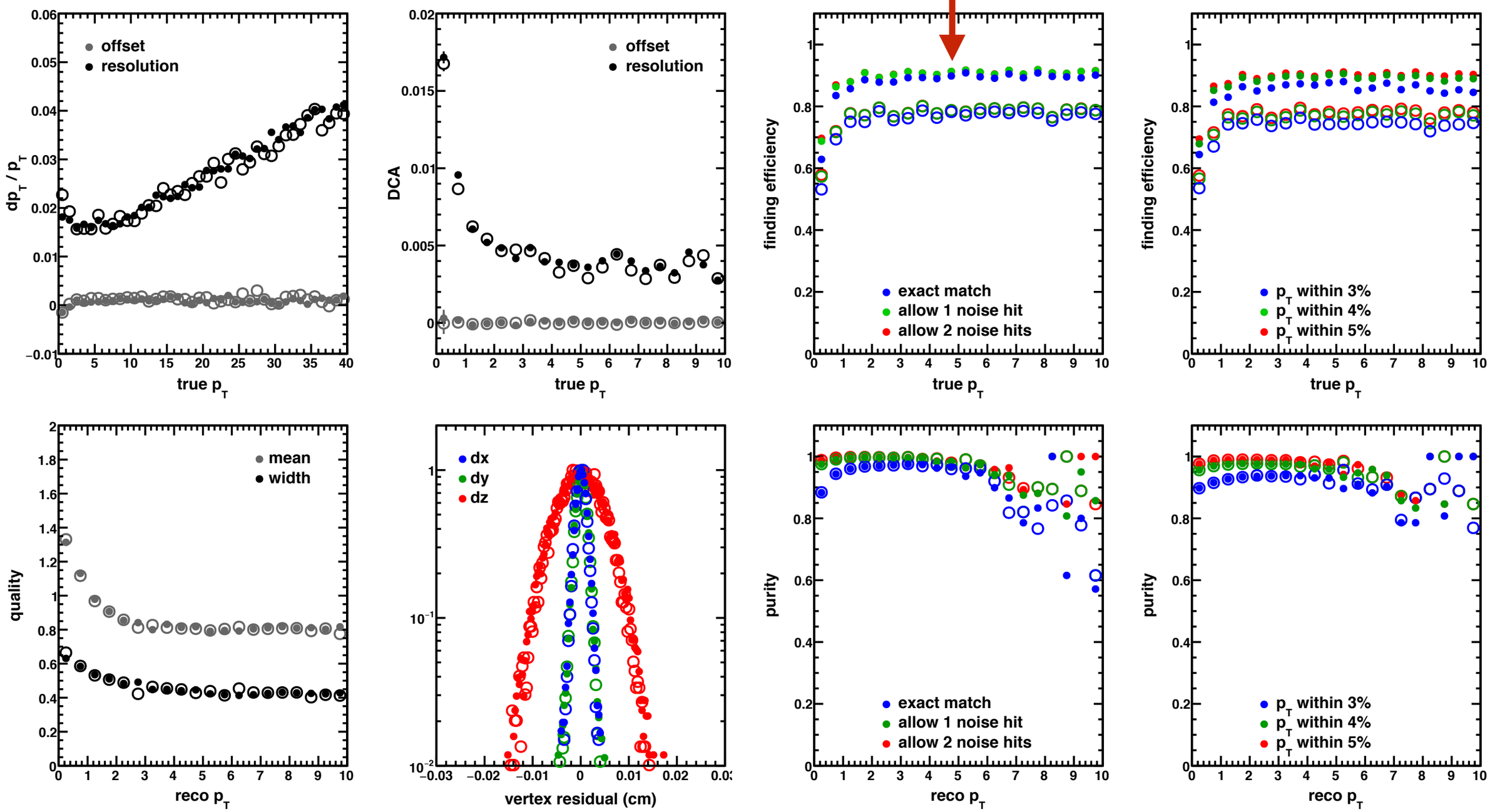
removes problem on failed seeding, seeds with BBC Z



SVTX Track Seeding

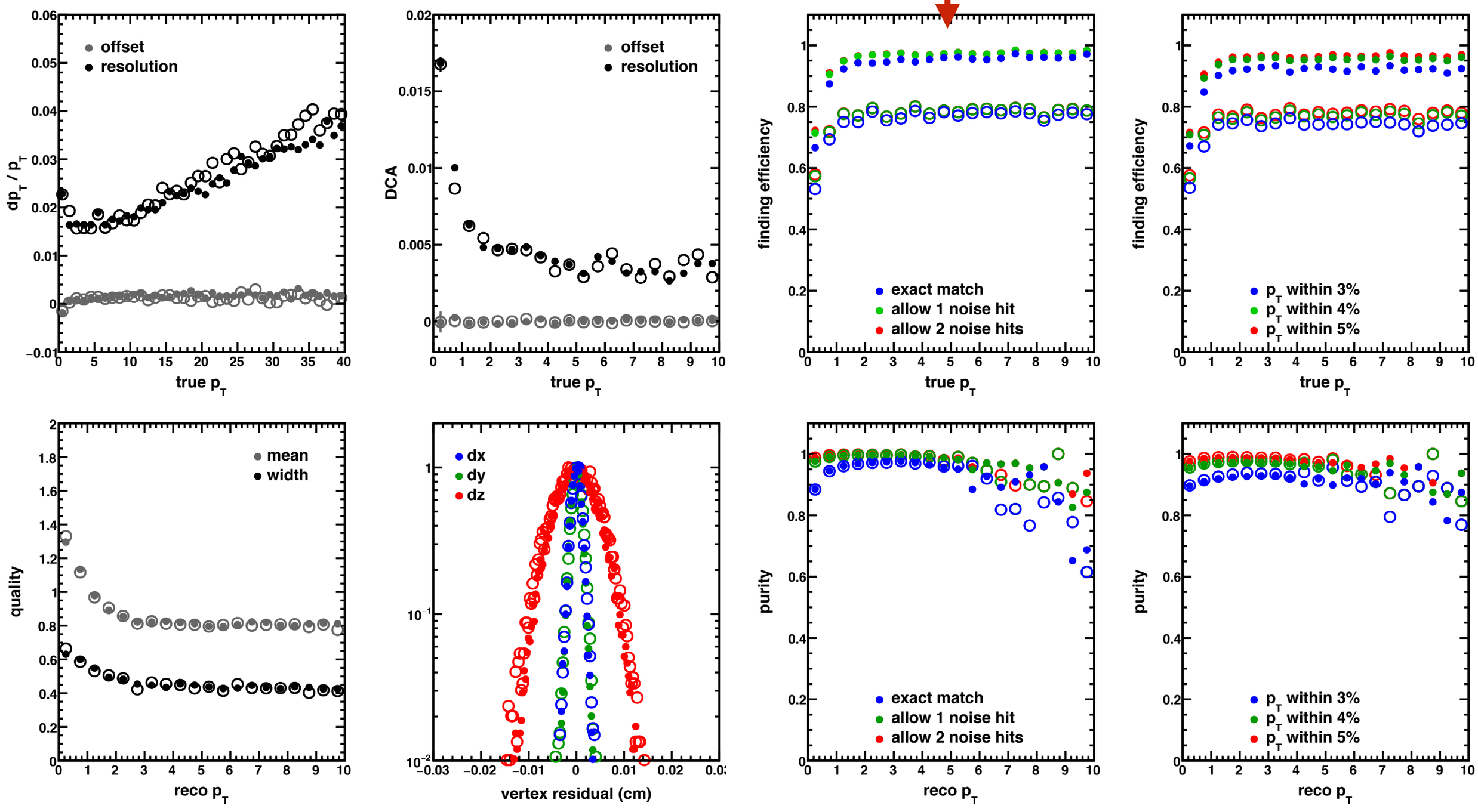
removes some of the problem on failed seeding, seeds with ~8-20 tracks

some other issue remains… maybe seed only z?



SVTX Track Z-Seeding

Yep, if I seed with only z…



Clean up and pull request? Composite with BBC Z failover?