Projects for the Workfest

Vertexing

a)   Tune existing z vertexing

b)   implement Z verytex reconstruction from ACTS

Seeding

c) RTree Seeding - needs cleaning stage (see David)

d) CA Seeding - adapt ALICE/KFparticle seeding

e) ACTS Seeding

f) Iterative seeding

Propagation

g) Simple propagation in the TPC - ala ALICE simplified KF

h) Sector merging

I)full KF propagation from ACTS, sPhenix clusters to ACTS measurments

Fitting

j) Full ACTS track fit

Tracking QA

k) set up performance benchmark test suite

Distortions

l) Simulation of TPC space charge distortions

m) Constraints from outer detectors - define performance parameters

Calibration and infrastructure

n) outline of Strategy

o) Geometry, Alignment and data storage containers. - outline technical requirements

p) Drift velocity calibration - vd free in kalman fit

Data compression

q) define Data storage format, DSTs and track classes - what is the essential information to keep

r) lossless data formats - re-reconstructable, recalibratable

s) Physics analysis format - persistent

KF Particle

t) Implement KF particle PID for HF analysis