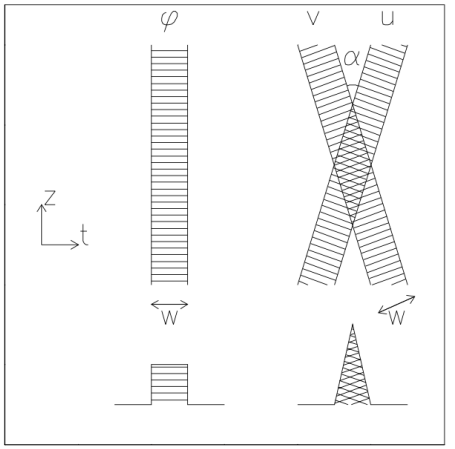
Cepc-ACTS

2020-7-7

- Add all Sub-detector resolution
  - https://gitlab.cern.ch/jinz/acts-framework-cepc/-/merge_requests/5
- Strip detector resolution
  - https://gitlab.cern.ch/jinz/acts-framework-cepc/-/issues/8
  - 1 sensitive surfaces need to be masked as “non sensitive”
- Two main troubles in the next weeks to be tackled
  - Kalman Filtering can not get good parameters
  - Material not consistent at eta~2



Kalman filter

- Two important concept
  - Fitting parameters : kalman smooth to (0,0) - (d0,z0,phi,theta,q/p)
  - TrackState : every measurement has 3 states in fitting process, predict, filter, smooth (loc1,loc2,phi,theta,q/p)
- With TPC, bad fitting parameters (at origin reference point)
- Weird smoothing state in TPC - the last smooth state
  - https://gitlab.cern.ch/jinz/acts-framework-cepc/-/merge_requests/11
- When we close TPC, parameters pull distribution still look not good
  - barrel(85), endcap(20)

Material mapping

- https://gitlab.cern.ch/jinz/acts-framework-cepc/-/issues/5
- Only barrel region(only vertex) also has this trouble