Kalman Vertex Fitter



- Working on BerkeleyLab fork of acts, two branches: https://gitlab.cern.ch/berkeleylab/acts/acts-framework/tree/vertexing https://gitlab.cern.ch/berkeleylab/acts/acts-core/tree/BilloirVertexFitter
- Goal: implement an iterative adaptive kalman vertex fitter
 - Bonus: extend to support time on (a subset of) tracks
- So far:
 - Implement ROOT ntuple output for easy test results
 - Adapted Acts::Vertex class to store timing (+cov) information
- In Progress:
 - Implement Kalman fitter class for 3D case
- Future:
 - Derive linearized equation for 6D track parameters (incl. Time)
 - Adapt Kalman fitter for accepting/returning 4D vertex (easy)
- Point for discussion:
 - Template vs inheritance for vertexing?
 - 3D vs 4D support throughout the library, what's the best way?