E42 TPC tracking program using genfit

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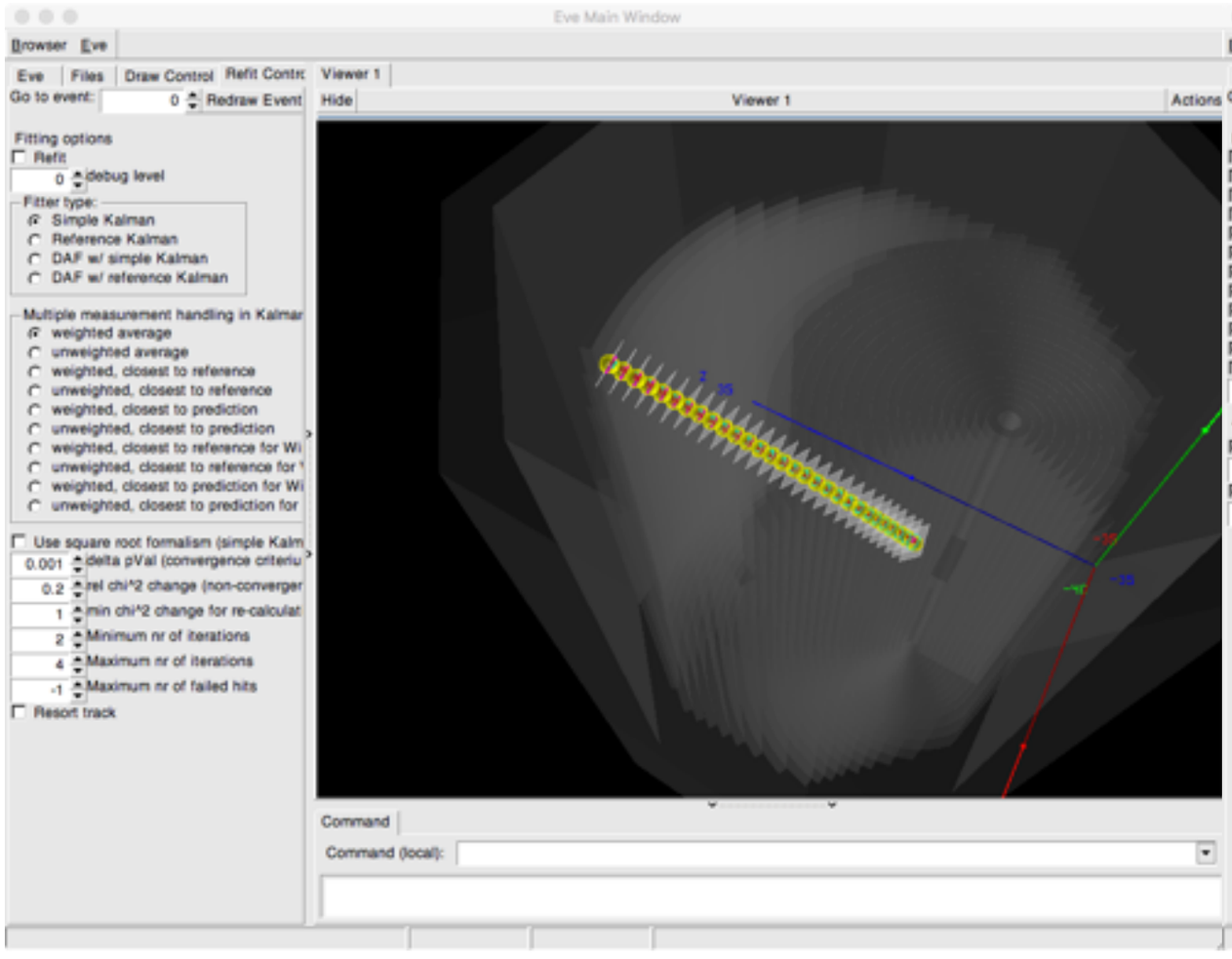
Status

- Input information : Output of E42 Geant4 simulation
- Track finding : Omitted, Using true information of geant4 hit information(track ID, particle ID)
- Current Data set : H-dibaryon->2lambda->2pi- + 2proton
- Event data were divided by track. (Consider single track data)
- Setting

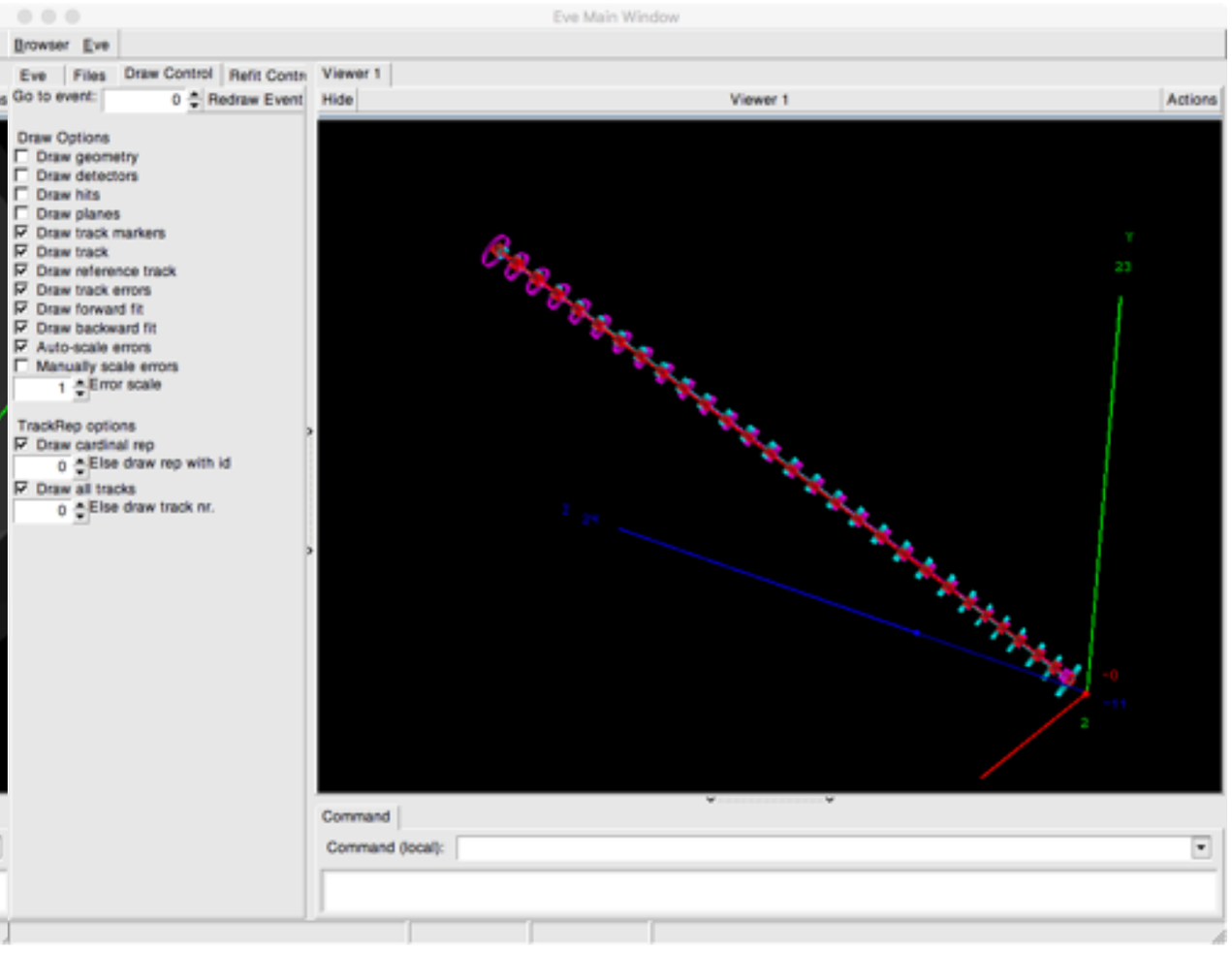
Current achievement

- Fitting tracks using Kalman Filter

All components(hits, planes)



track, forward fit, backward fit



Future plan

- Debugging (Segmentation fault, Display shutdown)
- Code modulerization (data converter, clustering, fitting, fitting result extractor)
- Performance test (Momentum resolution, hit position of extrapolated fit track on the Kurama upstream plane or Drift Chamber)

Eve Main Window

Browser Eve

Eve | Files | Draw Control | Refit Contr

Go to event: 0 Redraw Event

Draw Options
- [ ] Draw geometry
- [ ] Draw detectors
- [ ] Draw hits
- [ ] Draw planes
- [ ] Draw track markers
- [x] Draw track
- [x] Draw reference track
- [x] Draw track errors
- [x] Draw forward fit
- [x] Draw backward fit
- [x] Auto-scale errors
- [ ] Manually scale errors

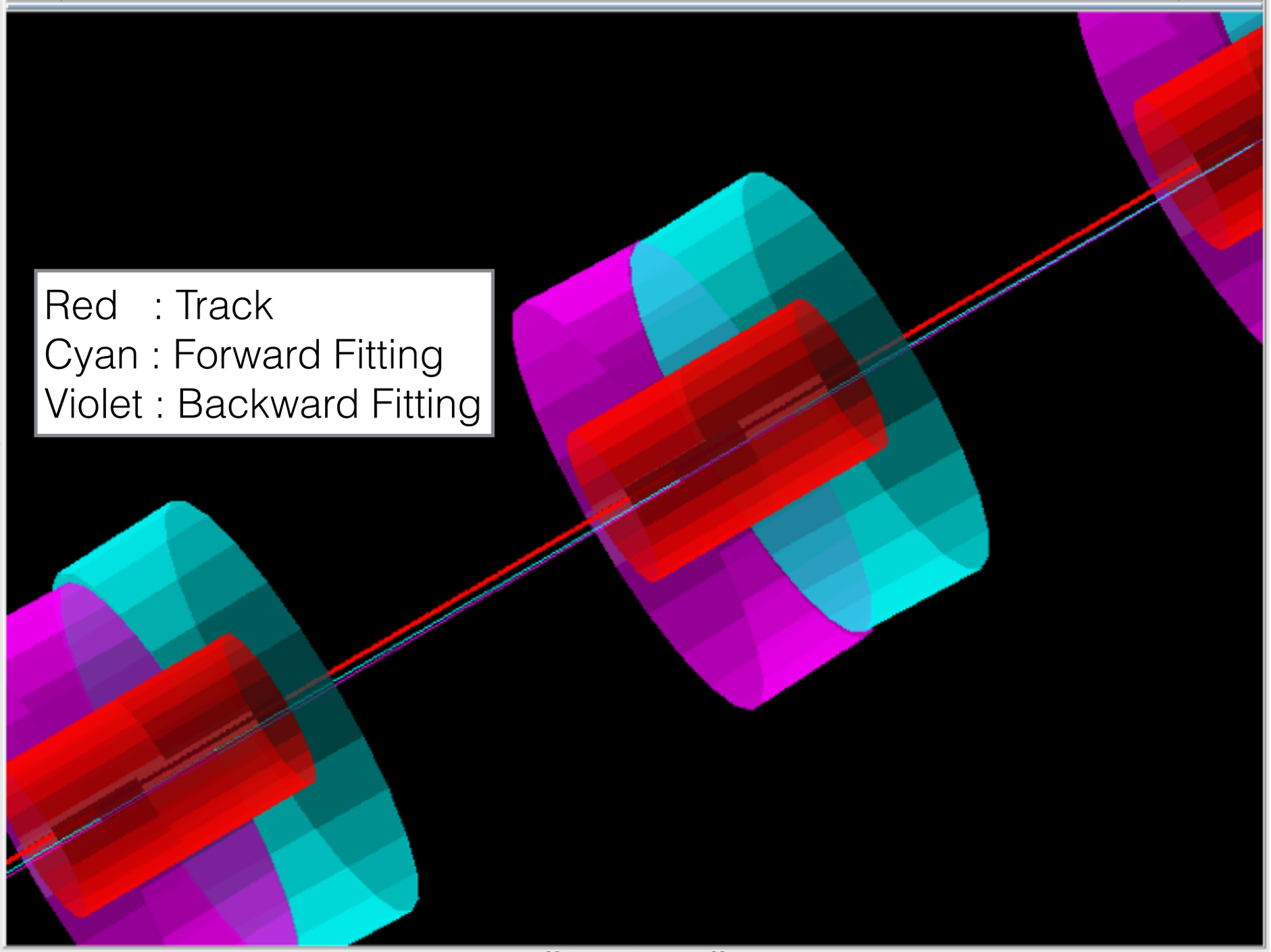
1 Error scale

TrackRep options
- [x] Draw cardinal rep

0 Else draw rep with id
- [x] Draw all tracks

0 Else draw track nr.

Viewer 1 | Hide | Viewer 1 | Actions



Command

Command (local):