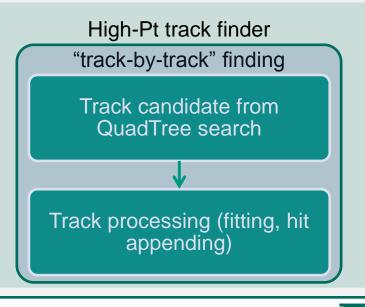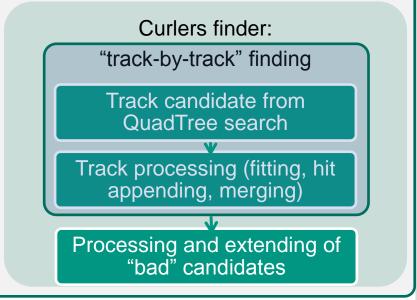# Module refactoring

- Global track finder should be splitted in few modules:
    - Track candidate finders:
        - High-pt track finder;
        - Curlers finder;
    - Stereohits assigners:
        - Based on histogramming
        - Based on merging with VXD tracks
        - (?) Based on genfit::DAF (as alternative to histogramming)

- Involving genfit for final fits:
    - Will cause drop in module performance but should increase efficiency

Tracks with axial hits only

High-Pt track finder

"track-by-track" finding

Track candidate from QuadTree search

↓

Track processing (fitting, hit appending)

Curlers finder:

"track-by-track" finding

Track candidate from QuadTree search

↓

Track processing (fitting, hit appending, merging)

↓

Processing and extending of "bad" candidates

Genfit::TrackCands (axial hits)

CDC stereohits → **Genfit::TrackCands (axial hits)** → **VXD tracks**

Stereohits assignment

Histogramming
- Assigning all stereohits which could belong to the track
- Estimate most probable polar angle of the track
- Assign correct stereohits basing on polar angle assumption

Merging with VXD tracks
- For each candidate search for corresponding VXD track
- Basing on polar angle of the VXD track assign stereohits

Stereohits assignment with DAF
- Assigning all stereohits which could belong to the track
- Process track with DAF
- Assign correct stereohits basing on fit results from DAF