

ACTS 总体的模块开发 情况和近期规划

ACTS进展情况和大致的规划

- ACTS-model
 - Geometry
 - Event Data Model
 - SpacePoint
 - Seeding
 - Track finding (missing)
 - Fitting
 - Vertex Fitting / finding
 - Alignment & Calibration (just begin)

Geometry

- 该模块已经基本完成
- 最近正在构建一个TrackML的探测器
 - Full simulation
 - Fast simulation
 - Digitization

Event Data Model-需进一步拓展

- Track model
 - TrackParameter
 - 不是特定的参数构成 (例如5参数)
- 现在主要包括Surface和径迹传播相关的信息
- 未来会加如chi2 fit的基本方法,MultivariantTrack State (Gaussian Sum filter)

Space Point & Seeding

- Seeding模块主要移植于ATLAS
- 正在讨论合并到主代码框架中

Track Finding

- 此部分是空白
- 未来的计划是Extend Kalman Filter

Extrapolator – 已经完成

- Stepper
 - Extend Vacume - 已完成
 - Extend Dense Environment – 已完成
 - Multi Stepper (a base for Gaussian Sum filter) – 基本完成
- Navigator – 已完成

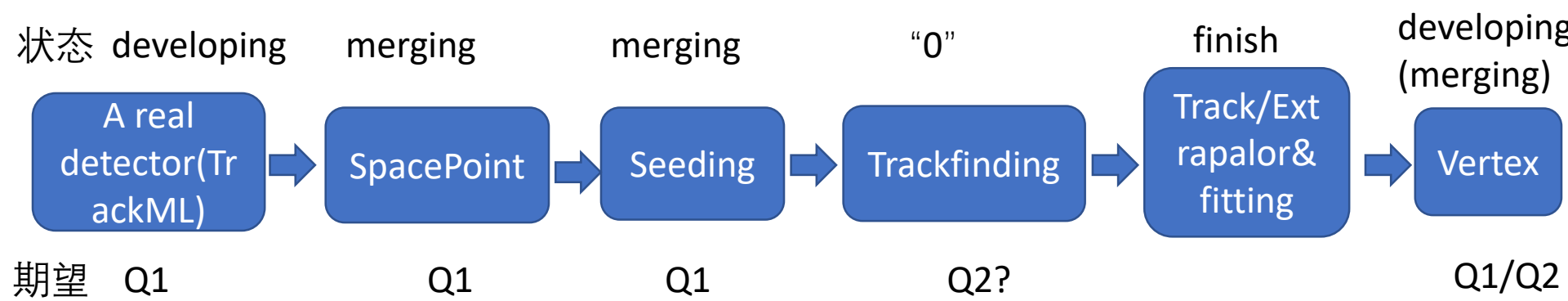
Vertex Finding/Fitter

- Fitter is on merging
- Vertex finding is being developed

Track fitting

- Kalman filter
- Gaussian Sum filter (正在开发)
 - Based on Multi Stepper
 - Material interaction (实现了基本方法)
 - MultiTrackState – 和Kalman 方式类似 (to do)
 - 优化 (future work)

总体而言



Alignment Calibration的具体实现可能还要靠后