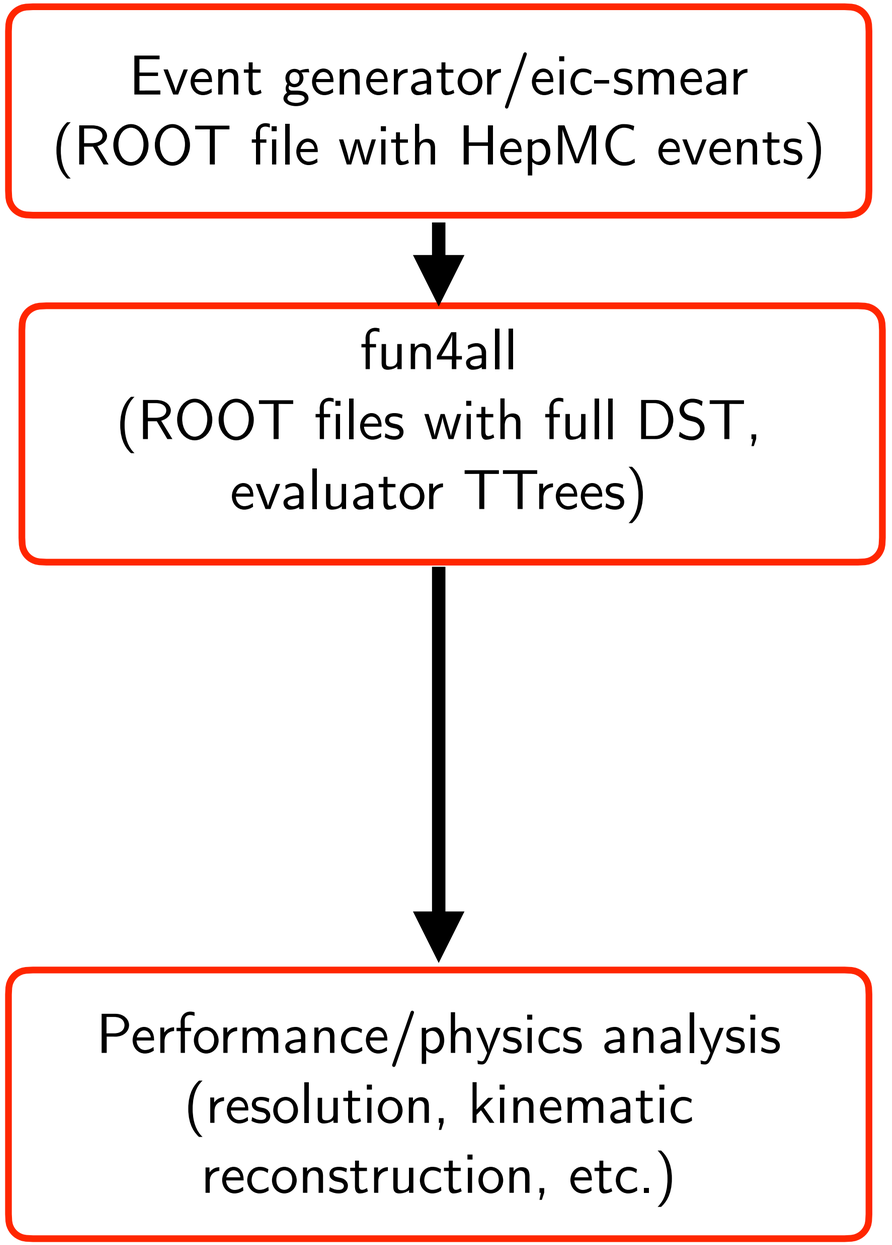
fun4all analysis software

Tyler Kutz

EIC Detector 1 inclusive WG meeting

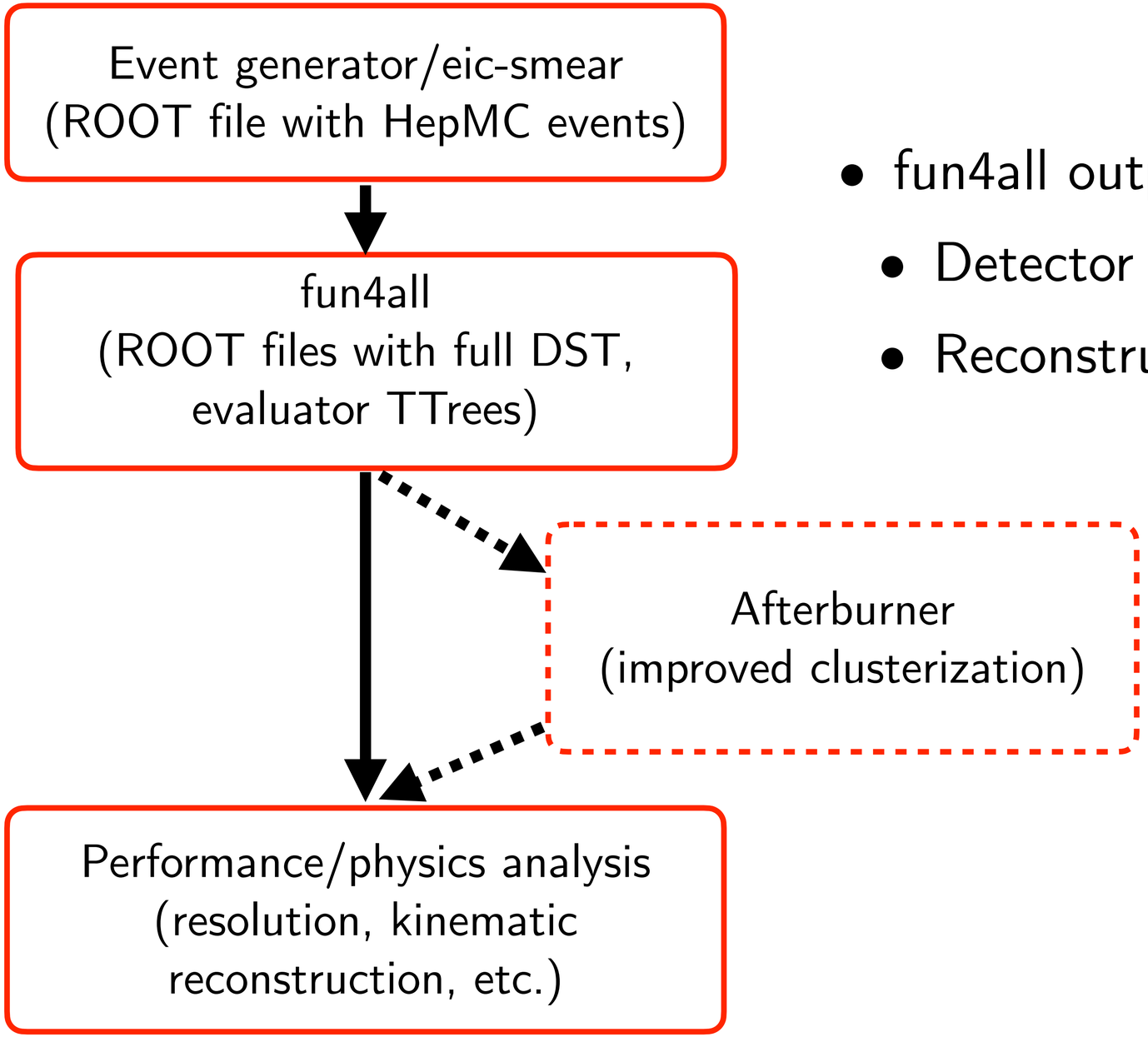
June 11, 2022

Historical motivation for afterburner



- fun4all output contains:
  - Detector quantities (hits, towers, etc.)
  - Reconstructed quantities (tracks, clusters, etc.)

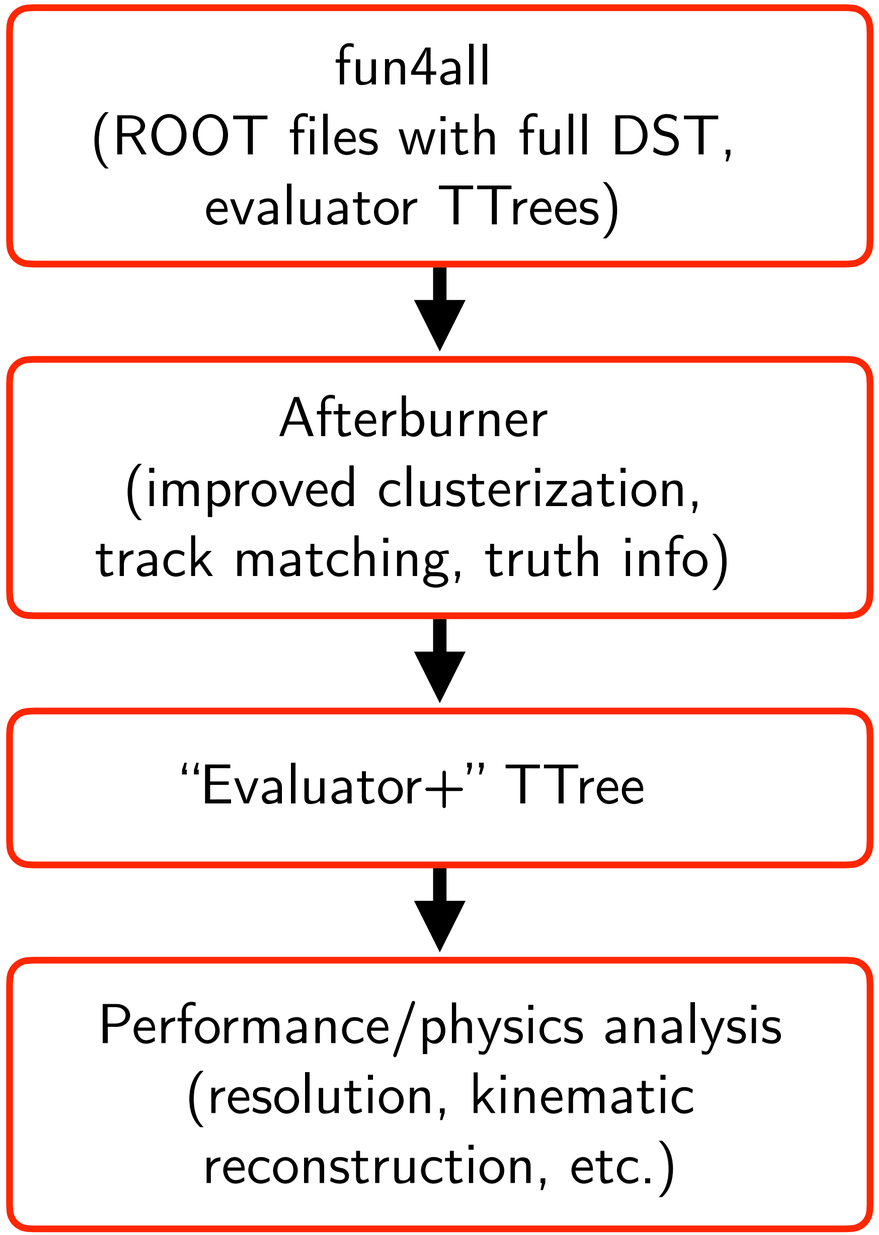
Historical motivation for afterburner



- fun4all output contains:
  - Detector quantities (hits, towers, etc.)
  - Reconstructed quantities (tracks, clusters, etc.)

- Afterburner allowed quick implementation/study of new cluster algorithms

Current analysis flow with afterburner



- New clusterization algorithms have since been implemented in fun4all
- However, running afterburner provides useful (though not strictly necessary) information:
  - Track/cluster matching
  - Truth matching information
  - Preliminary eID information
- Currently use afterburner to create enhanced evaluator file, on which analysis is run
- Can bypass afterburner if desired

Github repositories

- Official afterburner repository (owned by F. Bock, calorimetry co-convener): https://github.com/FriederikeBock/AnalysisSoftwareEIC

- Fork containing "plugin" for creating enhanced evaluator file: https://github.com/tylerkutz/AnalysisSoftwareEIC