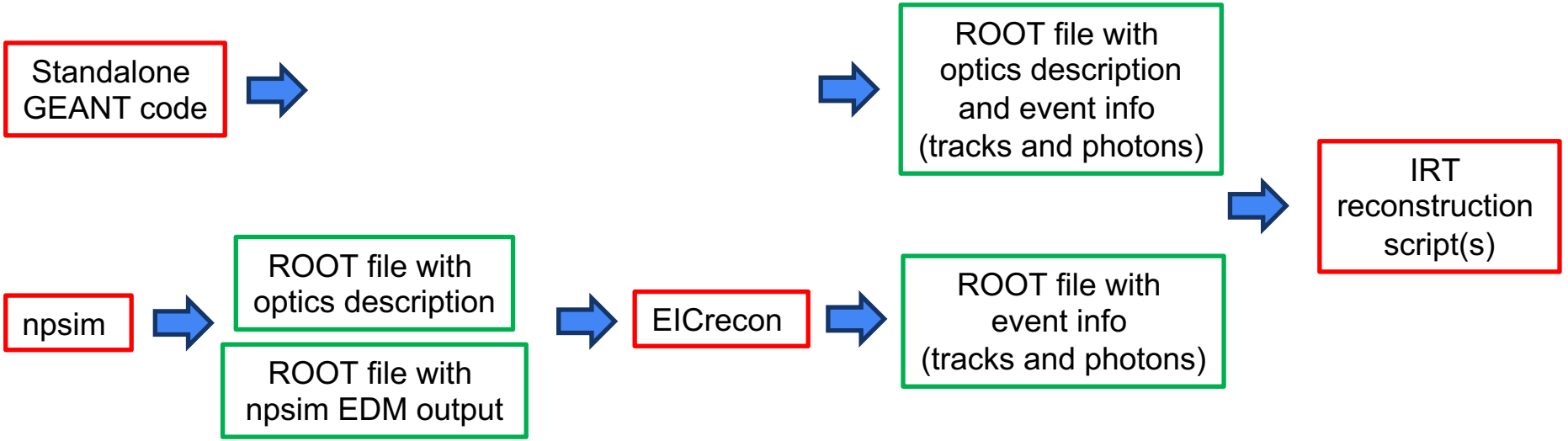
Present status of QRICH implementation

- IRT 2.0 reconstruction factory input emulated in full (tracks, photons), except for
  - Calibration pass (missing, but see the last bullet)
  - Aerogel properties (defined as uniform across a limited wavelength range)
  - HRPPD QE (defined as a constant providing $<N_{pe}>$ ~ 10-12 in this wavelength range)

- Missing parts of the required machinery extracted from dRICH codes
  - ACTS track parameterization at the aerogel location
  - Sensitive volume cell index description and usage
  - Several other things appeared to be of a limited use (geometry, digi, MC->reco logic)

- Event tree exported into a separate ROOT file a la standalone code (next slide)
  - From this point on all the scripts developed for standalone code can be used

Intermediate setup for debugging



- Path shown in the bottom chart is in a debugging stage now
- Once this is done and dressed up for QRICH (aerogel properties, QE, etc), the remaining work is naturally split into two independent directions
  - (1) Migration of IRT script contents back into EICrecon plugin (+ calibration input) …
  - … at which point one may think of a data model
  - (2) Implementation of pfRICH (and then dRICH) optics in pf(d)RICH_geo.cpp