#### The ICEDUST Framework oaRooTracker **ROOT Tree with PHITS** truth particles **MARS** SimG4 SimHitMerger SimDetectorResponse Geant4-based Resampling of truth hits Gas avalanches, crystal showers, particle tracking to build bunch events and electronics simulation Fluka Production Target CalibGlobal **Simulations** Main control for subdetector calibration

oaUnpack

Convert raw data to

new oaEvent files

oaRawEvent

Data decoding library

MIDAS data from detector

Fast and slow control data from detectors, monitoring, and beam group

- Geometry description,
- Fieldmap description,

**EventDisplay** 

reconstructed objects

## oaEvent

- Data: truth, hits, digits,

# ReconGlobal

Main control for subdetector reconstruction

### ReconsubDatC ReconsubDatR ReconSubDetA

alihSuhDatR

**CalibSubDetA** 

**Calibration** 

Constants

**Database** 

AnalysisTools

Build histograms, produce oaAnalysis files

oaAnalysis

Simplified ROOT tree for stand-alone analysis 3. Krikler, June 2016