

oaRooTracker

MARS

Fluka

PHITS

SimG4

Production Target
Simulations

Single protons on
target, secondary
muons / pions

Simulating COMET with ICEDUST

SimG4
Geant4-based
particle tracking

Truth hits
from single
POT event

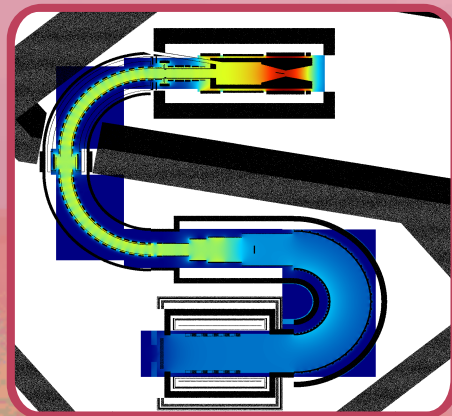
SimHitMerger
Resampling of truth hits
to build bunch events

Truth hits from
bunch event

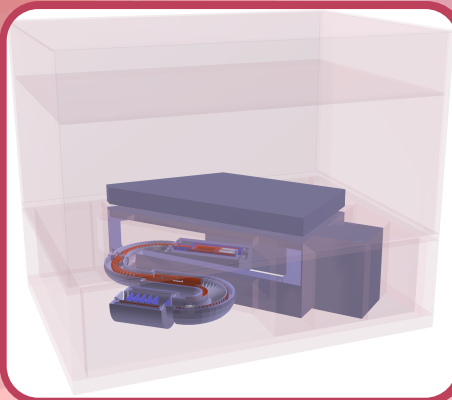
SimDetectorResponse
Gas avalanches, crystal showers,
and electronics simulation

Detector
read-out
for bunch
event(s)

Proton
pulse
Muon / pion
beam
Truth hits
in detector
Detector
active time



Field map



Geometry

oaEvent
Geometry and
fieldmap from
SimG4 used
throughout
ICEDUST

To calibration,
reconstruction, analysis