Single Particle:

Type: Electron, Muon, Pion, Photon & Neutron;

Energy Range: 0.1-150 GeV

Observable: (As a function of Pola angle & energy)

Reconstruction efficiency,

Chance of splitting &

Energy resolution.

On pure Higgs signal sample:

Z->inclusive, H->di photon:

Efficiency & sigma/Mean of Higgs invariant mass peak;

//Checking ECAL & Tracker Material

Z->invisible,

H->bb, Once Efficiency at 80%, Corresponding efficiency

H->cc, Once Efficiency at 60%, Corresponding efficiency

//Checking PFA & Flavor Tagging

Z->ll, H->inclusive,

Recoil mass spectrum

//Checking Lepton ID & Tracker Resolution

Z-> vv, H->tautau

Tagging efficiency for different H->tautau decay mode

//Checking Tracking, PFA & Impact Parameter

Z->ll, H->WW\*->lvqq

Tagging efficiency for different lepton modes:

3e, 2e +mu, 2mu + e, 3\*mu

//Lepton ID & JER

Z->qq, H->invisible

Recoil mass spectrum

//JER