

1st National Workshop on GEANT4 and its Application to High-Energy Physics and Astrophysics



GEANT4
A SIMULATION TOOLKIT



Monday, 5 December 2022 - Friday, 9 December 2022

IUCAA, Pune

Scientific Programme

Day 1: Introduction to GEANT4

Opening talk by Daniel Elvira

GEANT4 basics and kernel - Sunanda Banerjee

Geometry - Raman Sehgal

Hadronic Physics - Sunanda Banerjee

EM and Optical physics - Moon Moon Devi

Scoring - Sunanda Banerjee

Building basic application (all necessary basic classes) - Raman Sehgal

Visualisation - TBA

Day 2 and 3: GEANT4 application to HEP

Refresher course on detector physics and use of G4

Detailed physics which can be simulated for one detector type

Hands on session on building a G4 application for this detector type (half of the day each day)

Day 4 and 5: GEANT4 application to Space based detectors

Refresher course on detector physics use of G4

Detailed physics which can be simulated for a CZT detector

Hands on session on building a G4 application for a CZT detector (half of the day each day)