

High Energy Particle and AstroParticle Physics Data Analysis School (HEPAP-DAS)



Saha Institute of Nuclear Physics, Kolkata

Dec 4 – Dec 8 2023



Preschool: 30th Oct to 9th Nov, 2023

All registered students are invited to join the online preschool during 30th Oct to 9th Nov 2023. Selection of students for the final school will depend on the performance in the preschool, marks obtained in the course done in Bachelor/Masters courses (if any) and recommendation letters.

Python and C++ : Prof. Subir Sarkar, SINP, Kolkata
Installation and guiding : Prof. Deepak Samuel, Central University, Karnataka
RooFit & Root : Prof. Saranya Ghosh, IIT, Hyderabad

Online Schedule

Date	Time	Time
	11:00 – 12:30	17:30 – 19:00
30 th Oct 2023	Introduction to Scientific Computing and computing environment	Sessions for the installation and testing of different software tools, e.g., Github, Anaconda, Jupyter notebook, SQL, ROOT, Geant4 etc.
31 st Oct 2023	Python Data Structure	
1 st Nov 2023	Functional Programming with Python	
2 nd Nov 2023	Python Modules	
3 rd Nov 2023	Object Oriented Python	
6 th Nov 2023	Essential C++	Introduction to PyROOT/UpRoot and basic concepts of RooFit
7 th Nov 2023	Object-oriented programming in C++	
8 th Nov 2023	Generic Programming in C++ and the Standard Template Library (STL)	ROOT: Basic concepts, ROOT Files and Input/Output, Math Libraries
9 th Nov 2023	Modern C++ (C++11 onwards)	Histograms, Graphs, Tree based analysis