# Experimental High Energy Physics School on Software Development

## Tata Institute of Fundamental Research, Mumbai
## Jan 28 – Feb 10, 2024

**The school provides a foundation in software development in the field of experimental particle physics. The scientific program will integrate academic courses and state-of-art software sessions by the experts in the field. Students will be introduced with the concepts of different algorithms with example codes to follow. In the evening sessions students will work in small groups to develop their skills by extending those example codes for more complex cases.**

## Topics

- Basic concept of fitting algorithms
- Kinematic fitting
- Random number generator
- Database
- Generation physics processes
- Simulation of matter particle interactions
- Reconstruction of momentum of charged particle
- Clustering algorithms for neutral particles
- Alignment & Calibration
- Neural Network to Artificial Intelligence
- Simulation of quantum sensors

**Local hospitality will be provided to all outstation participants. Partial travel support may be available for few candidates.**

## Organising Committee


Sunanda Banerjee, IACS, Kolkata

Satyaki Bhattacharya, SINP, Kolkata

Abhijit Bhattacharyya, BARC, Mumbai

Rajdeep Chatterjee, TIFR, Mumbai

Saranya Ghosh, IIT, Hyderabad

Shilpi Jain, TIFR, Mumbai

Gobinda Majumder, TIFR, Mumbai

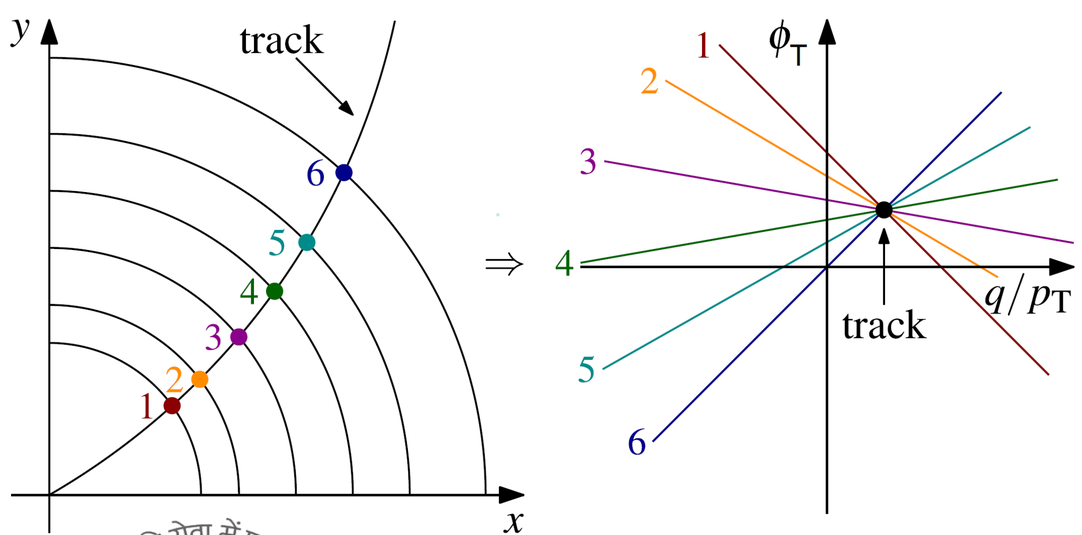
Aruna Nayak, IOP, Bhubaneswar

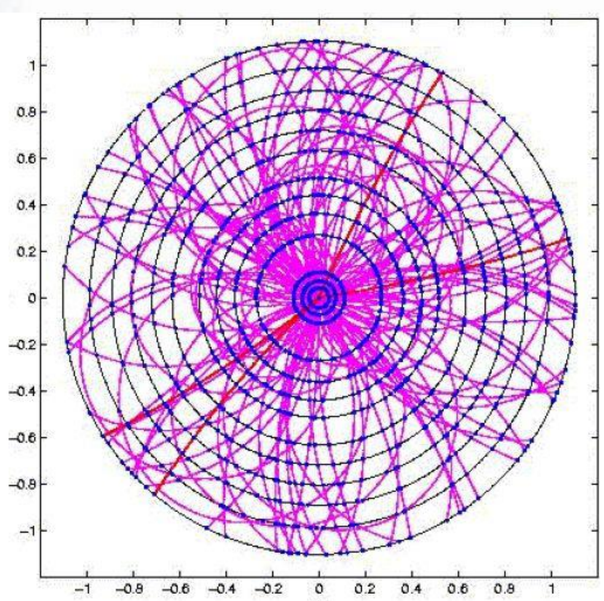
Deepak Samuel, Central University, Karnataka

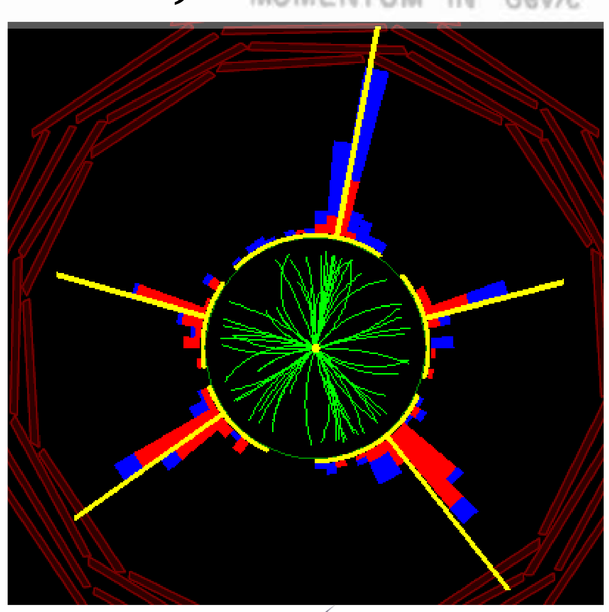
Subir Sarkar, SINP, Kolkata


**Online applications are invited from Ph.D. students in experimental HEP, who are in the early phase of their research career along with one recommendation letter. There will be a preschool (online lectures during 30th Oct – 11th Nov, 2023) with the shortlisted candidates to train them more on prerequisites and select students for the final school.**

**Last Date for Application : 8th October, 2023**





**More information at https://www.tifr.res.in/~ehep2024/**

**Contact : ehep2024@tifr.res.in**