

Experimental High Energy Physics school on software development

Tata Institute of Fundamental Research, Mumbai
Jan 20 - Feb 03, 2024

The school provides a foundation in software development in particle physics. The scientific program will integrate academic courses and state-of-art software sessions by 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.

Topic Covered :

- Standard Model Physics
- Matter Particle interactions
- Basic concept of fitting algorithms
- Kinematic fitting
- Random number generator
- Generation physics processes
- Simulation of matter particle interactions
- Reconstruction of momentum of charged particle
- Clustering algorithms for neutral particles
- Graphical user Interface
- Neural Network to Artificial Intelligence
- Simulation of quantum sensors

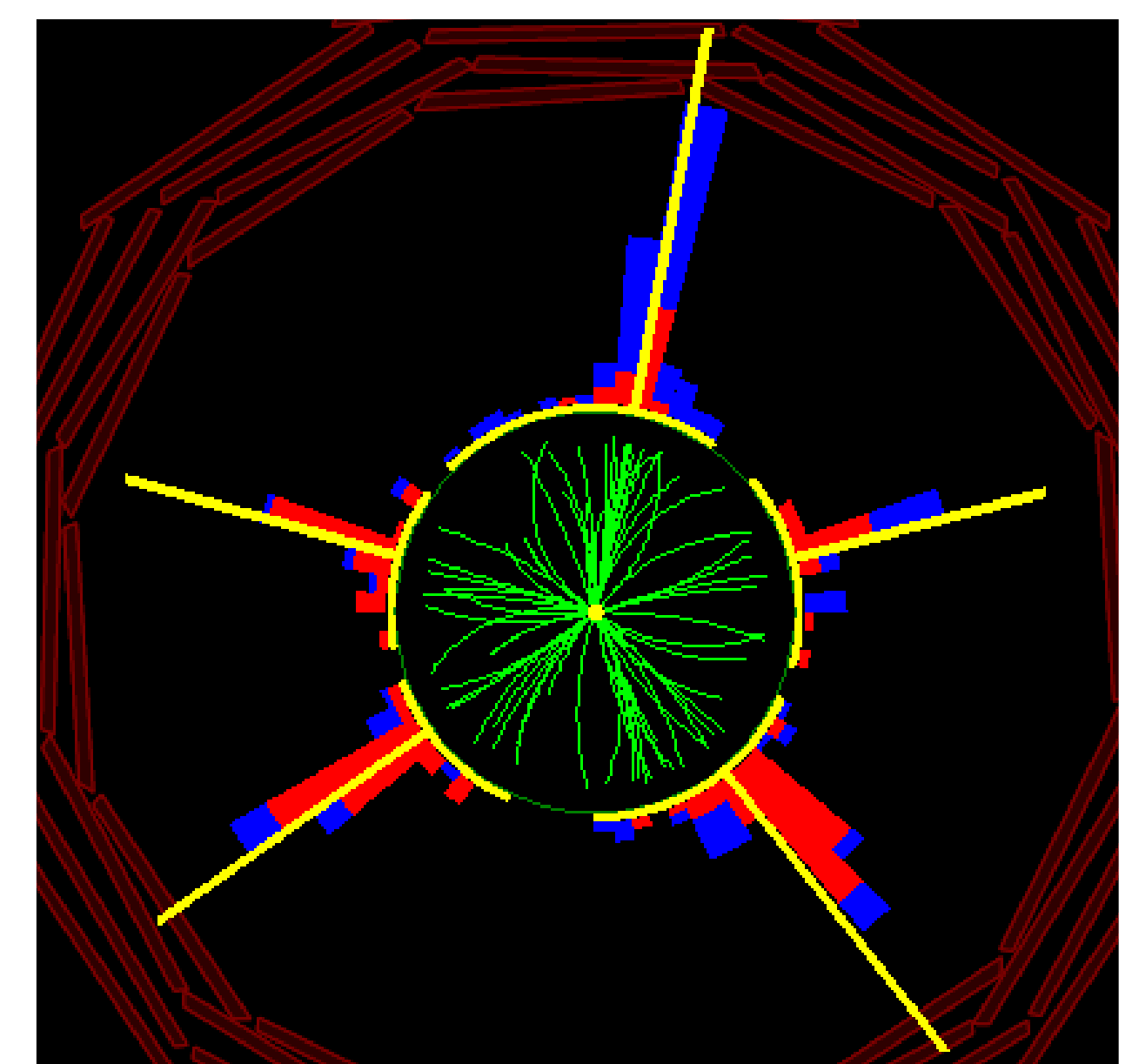
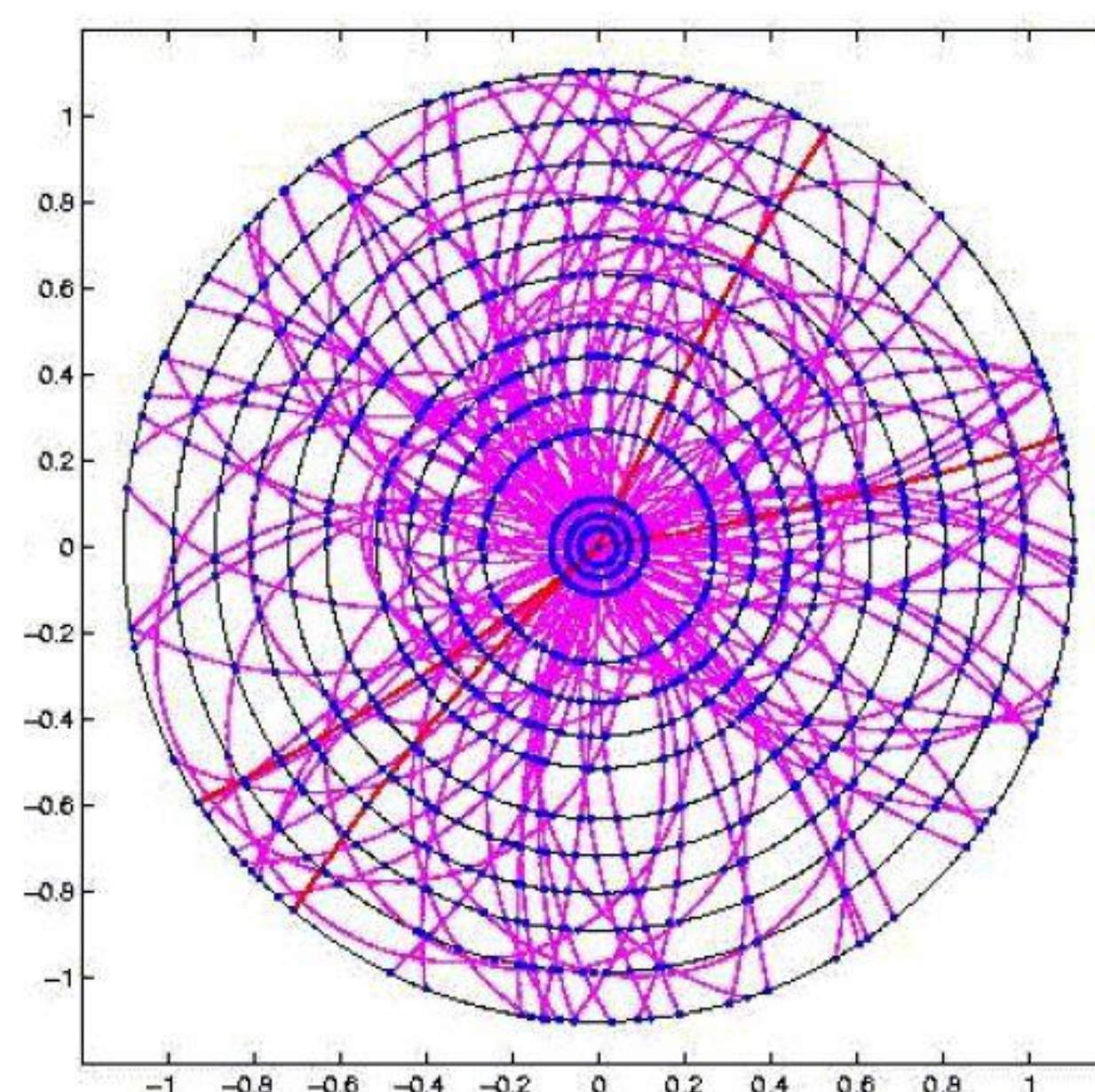
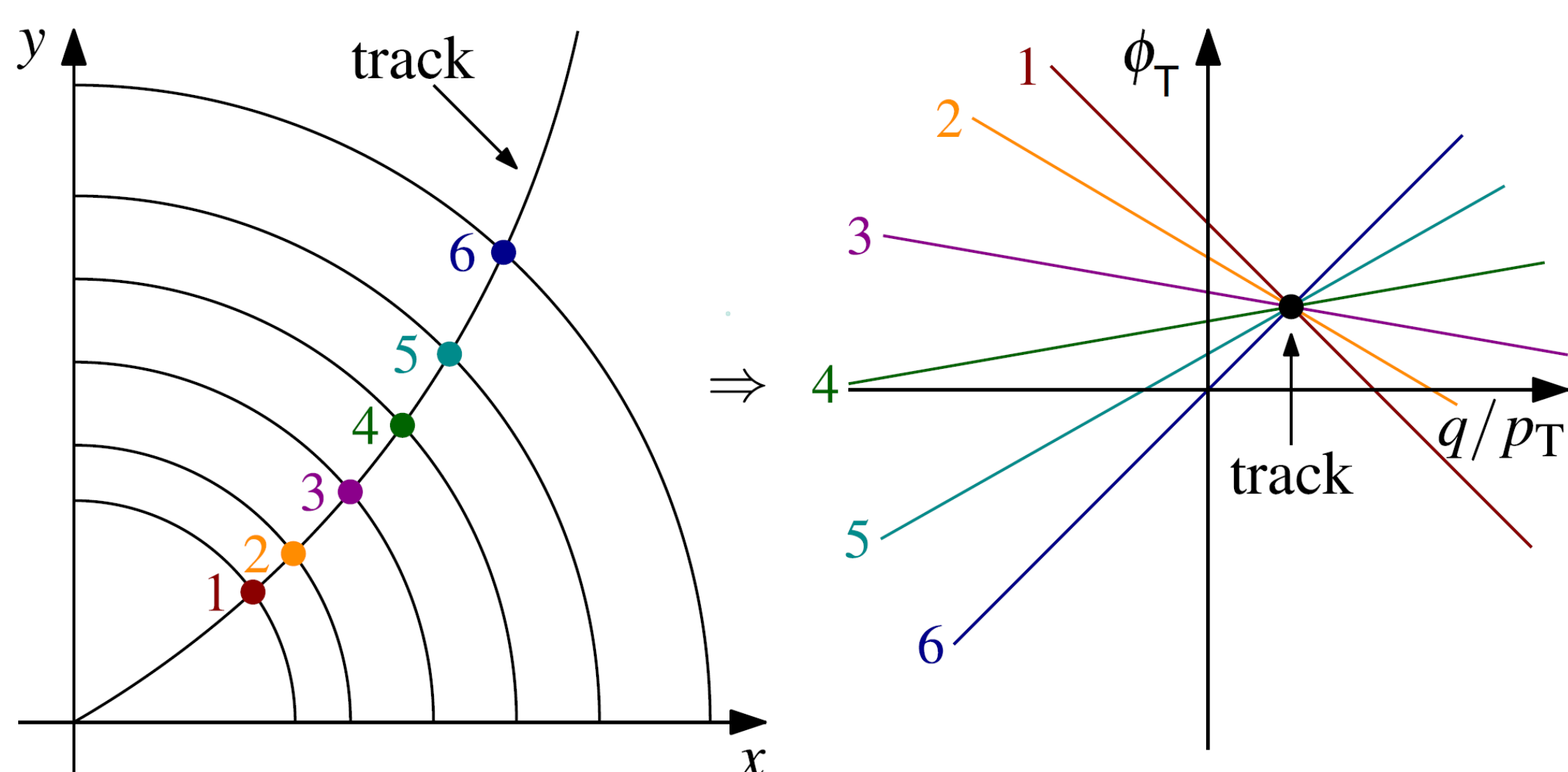
Participants will be provided with local hospitality. Partial travel support may be available for few candidates.

Local Organizing Committee

- Gobinda Majumder, TIFR, Mumbai
- Rajdeep Chatterjee, TIFR, Mumbai
- Shilpi Jain, TIFR, Mumbai
- Subir Sarkar, SINP, Kolkata
- Satyaki Bhattacharya, SINP, Kolkata
- Sunanda Banerjee, IACS, Kolkata
- Aruana Nayak, IOP, Bhubaneswar
- Deepak Samuel, Central University, Karnataka
- Saranya Ghosh, IIT, Hyderabad
- Abhijit Bhattacharyya, BARC, Mumbai

Online applications are invited from Ph.D. students in experimental HEP, who are in the early phase of their research career along with **one/two** recommendation letters. **There will be a preschool with the shortlisted candidates to select students for the final school.**

Last Date for Application : 31st October, 2023



More information at <https://www.tifr.res.in/~ehp2024/>
Contact : ehp2024@tifr.res.in

