

11th School on LHC Physics August 22 – September 02, 2022 organized by CoE Physics of National Centre for Physics, Islamabad



The Large Hadron Collider (LHC), at CERN, Switzerland, is the world's largest man-made particle accelerator to answer fundamental questions about origin of matter through precision measurements of Standard Model (SM) and exploring physics Beyond Standard Model. The large amount of LHC data i.e 300-350 fb⁻¹ will be collected at 14 TeV during Run-3. CoE Physics at NCP is actively involved in Phase-2 Tracker Upgrade of CMS. The school will provide opportunity to young scientists, graduate students to learn about the techniques and tools needed to extract exciting physics results from proton-proton collision data. Students will get chance to participate in lab-activities like how to qualify a silicon sensor, how to assemble and test it. Renowned particle physicists will deliver lectures covering different areas of Particle Physics.

Topics covered

- SM and Beyond
- Top Quark, Higgs Physics
- QCD and Monte Carlo
- Detectors in HEP
- Object Identification, Jet & MET
- Statistical Tools in HEP
- Hands on Exercises of LHC data





Directors

Mansoor Hameed Inayat (NCP, Pakistan) Ishaq Ahmad (NCP, Pakistan) Ashfaq Ahmad (NCP, Pakistan)

Invited Speakers

John Ellis (Kings College, UK) **Thomas Muller (KIT, Germany) Duccio Abbaneo (CERN, Switzerland)** Joshuha Thomas-Wilsker (CERN, Switzerland) Henning Kirschenmann (UoH, Finland) Bilal Masood (CHEP, Pakistan) Ashfaq Ahmad (NCP, Pakistan) Faisal Akram (CHEP, Pakistan) Muhammad Jamil Aslam (QAU, Pakistan) Mansoor ur Rehman (QAU, Pakistan) Wajid Ali Khan (NCP, Pakistan) Saleh Muhammad (NCP, Pakistan) Imran Malik Awan (NCP, Pakistan) Muhammad Shoaib (IUB, Pakistan) **Rizwan Khalid (LUMS, Pakistan)**

Local Organizers

Saleh Muhammad Wajid Ali Khan **Rabia Rasheed Butt** Zeeshan Siddiqui

Technical Coordinator

Muhammad Irfan Asghar Email: <u>irfan.asghar@ncp.edu.pk</u> Phone: 051-2077388

Application Deadline

For Local participants: August 08, 2022 For foreign participants: July 25, 2022

How to Apply follow the link below to apply: http://www.ncp.edu.pk/slp-2022.php

Registration fee of Pak. Rs. 2000/will be charged on the first day school from the finally selected participants.

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