



8th School on LHC Physics

August 19 - 30, 2019

Organized By

National Centre for Physics (NCP), Islamabad, Pakistan



Experimental High Energy Physics Department (EHEPD) at National Centre for Physics (NCP), Islamabad is organizing 8th School on LHC Physics from August 19 - 30, 2019. The objective of the school is to provide a platform to young researchers and students to interact with the leading experts of the field and to learn the latest tools and techniques used to analyze the physics data.

Introduction

The Large Hadron Collider (LHC) has already delivered a tremendous amount of data with a proton-proton collisions at center-of-mass energies of 7, 8 and 13 TeV and an excellent performance of the ATLAS, CMS, LHCb and ALICE experiments have allowed an extraordinary precision calculations and modeling of various physical processes at hadron colliders. The LHC results using 150 fb^{-1} of data have so far confirmed the validity of the Standard Model (SM) of particle physics up to unprecedented energy scales and with great precision in the sectors of strong and electroweak interactions as well as flavour physics. Physicists are now eyeing towards the High Luminosity LHC (HL-LHC) which will deliver around 3000 fb^{-1} to probe the SM with even greater precision.

Topics to be Covered

- **Standard Model and Beyond**
- **Top Quark, Higgs and Electro-Weak Physics (EWK)**
- **Supersymmetry**
- **Statistical Tools in High Energy Physics (HEP)**
- **Data Science and Machine Learning (ML)**
- **Monte Carlo Generators in HEP**
- **Detectors in HEP**
- **From Raw to Physics Objects**
- **Trigger and Data Acquisition**
- **Future Colliders**
- **Hands on Exercises**

Participation

The school will be of interest to graduate and post-graduate students, post-doctoral researchers, faculty members and research scientists who have published their research in recognized international journals in the field of theoretical or experimental particle physics within last three years are encouraged to apply as a participant, speaker or a poster presenter. The registration fee of the school for a local participant is PKR. 2500 and for a foreign participant is USD 30. The programmes will be delivered entirely in English. Local hospitality will be provided to all the selected participants. Limited travel assistance may also be provided to outstation participants and speakers.

How to Apply

The online application form is available at the school website <http://www.ncp.edu.pk/slp-2019.php>. The selected participants will be notified by an email from the organizing committee once the selection procedure is completed.

For further queries, please contact

Collaborations & Academic Activities Department (CAAD)
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Directors

Hafeez R. Hoorani (NCP, Pakistan)
Ashfaq Ahmad (NCP, Pakistan)

Foreign Speakers (Tentative)

Hanno Jonas Rademacker (UK)
Akram Khan (UK)
Luca Malgeri (Switzerland)
Federico De Guio (USA)
Gabriella Pugliese (Switzerland)

Local Speakers (Tentative)

Hafeez R. Hoorani (NCP, Pakistan)
Bilal Masood (CHEP, Pakistan)
Ashfaq Ahmad (NCP, Pakistan)
Faisal Akram (CHEP, Pakistan)
Mahnaz Haseeb (COMSATS, Pakistan)
Rizwan Khalid (NUST, Pakistan)
Farida Tahir (COMSATS, Pakistan)
Mansoor-ur-Rehman (QAU, Pakistan)
Rashid Ahmed (KUST, Pakistan)

Local Organizers

Rizwan Ali Khan (ADMIN)
Abdul Hamid (CAAD)
Saleh Muhammad (EHEPD)
Munir Ahmad Khan (EHEPD)
Imran Malik Awan (EHEPD)
Wajid Ali Khan (EHEPD)
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Application Deadlines

Local Participants

July 10, 2019

Foreign Participants

June 10, 2019