

# 6<sup>th</sup> School on LHC Physics

(21 August - 01 September 2017)

Organised by: National Centre for Physics (NCP), Islamabad

Co-sponsored by: The Abdus Salam International Centre  
for Theoretical Physics (AS-ICTP), Trieste, Italy



The Large Hadron Collider (LHC), at CERN, Switzerland, is the world's largest man-made particle accelerator to probe the standard model of particle physics and beyond. In July, 2012, the CERN has announced the exciting discovery of Higgs Boson, a milestone achievement in the history of particle physics. In the years 2015-16, the enhanced centre of mass energy of proton-proton collisions at 13 TeV and higher luminosities at the LHC have played a crucial role to investigate the physics of interest. In this year and onwards, many other interesting results are expected to come from CERN.

NCP is regularly organising schools on LHC Physics since 2009, in coordination with AS-ICTP. Many of well-known physicists and field experts from all over the world join this school to train the next generation of LHC physicists. Along the same lines, the focus of this 6th school on LHC Physics is also to build and strengthen the knowledge of undergraduate and graduate students, and young researchers in the field. The school will be covering physics-oriented lectures, data analysis tutorials and hands-on exercises designed by various local and foreign experts.

## Topics covered

The school will cover the following major topics:

- Standard Model of Particle Physics and Beyond
- Top Quark, Higgs and Electroweak Physics
- Supersymmetry, Extra Dimensions and Exotic Particles
- Detectors in High Energy Physics
- Raw Data to Physics Publication
- Data Analysis Framework (ROOT)
- Event Generators - PYTHIA
- CMS Software (CMSSW)
- Object Identification and Reconstruction
- Statistical Techniques in High Energy Physics
- Data Access using Worldwide LHC Computing GRID

## Participation

Graduate/Undergraduate students of universities/institutes and young scientists, who are new to the field of particle physics or intend to work in this field can apply.

## How to apply

Online application form is available at activity weblink:

<http://www.ncp.edu.pk/slp-2017.php>

**For Further Information, Please Contact:**

Activity Secretariat: [slp-2017@ncp.edu.pk](mailto:slp-2017@ncp.edu.pk)

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5th School on LHC Physics at NCP, 2016



4th School on LHC Physics at NCP, 2014

## Directors

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## Registration fee

Registration fee of the school is **PKR 1500**, which will be paid at registration desk. There is no registration fee for foreign participants.

## Application Deadline

for Local participants: **June 30, 2017**

for foreign participants: **June 10, 2017**