



International Symposium on Physics Beyond the Standard Model

October 5 – 9, 2015

Organized By
National Centre for Physics (NCP), Islamabad, Pakistan

The Experimental High Energy Physics (EHEP) Department at National Centre for Physics (NCP), Islamabad is organizing an International Symposium on Physics Beyond the Standard Model (ISPBSM) from October 5 - 9, 2015. The main objective of the symposium is to provide a platform to young researchers and students working in the field of theoretical and experimental particle physics to present their work and interact with leading experts in the field to gain knowledge, expertise and strengthen mutual collaborations.

Introduction

The Large Hadron Collider (LHC), the world's largest particle accelerator at CERN, Switzerland, working at the highest energy ever achieved. The LHC is expected to probe the standard model and the physics beyond the standard model. The LHC has already produced the collision data at 8 TeV center-of-mass energy during the Run-I and is now operating at 13TeV center-of-mass energy with higher luminosities. The enhanced center-of-mass energy and luminosities are expected to play a crucial role in investigating physics beyond the standard model. The already discovered Higgs Boson and extremely rare decays of strange B-meson are the loud and clear testaments to the performance of LHC machine and the sensitivity of various experiments.

The standard model is the most established theoretical framework of particle physics. All the up-to-date modern particle physics experiments are consistent with the foundations of the standard model. But there is a strong belief that the standard model is still an incomplete theory. The standard model neither incorporates gravity nor it explains some of the basic open questions like the nature of dark matter, dark energy, neutrino oscillations and matter anti-matter asymmetry. These are a few primary reasons to build theories beyond the standard model. The theoretical models such as the Grand Unification Theories, Super-symmetry, String Theory and the Theory of Large Extra Dimensions are some of the most important candidates of the physics beyond the standard model or new physics.

Topics to be Covered

- *Super-symmetry*
- *String Theory*
- *Extra Dimension and Cosmology*
- *Implications of LHC Run-I & Run-II*

Participation

Active graduate and post-graduate students, post-doctoral researchers, faculty members research scientists who have published their research outputs 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 poster presenter. There is no registration fee for participation. The mode of communication of the activity will be english. Local hospitality will be provided to all the selected participants. Limited travel assistance may also be provided to outstation participants

How to Apply

Online application form is available at <http://www.ncp.edu.pk/ispbsm-2015.php>. Application forms should be submitted online not later than **September 10, 2015**. Applicants shortlisted by the technical committee will receive invitation letter from the organizing committee once the selection procedure is completed.

For further queries, please contact
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Directors

A. Ahmad (NCP, Pakistan)
H. R. Hoorani (NCP, Pakistan)

Invited Speakers

I. Ahmad (NCP, Pakistan)
F. Akram (CHEP, Pakistan)
J. Aslam (QAU, Pakistan)
V. Branchina (INFN, Italy)
Fayyazuddin (NCP, Pakistan)
M. Haseeb (COMSATS, Pakistan)
P. Hoodbhoy (FC, Pakistan)
H. R. Hoorani (NCP, Pakistan)
A. Iqbal (LUMS, Pakistan)
Jamil-un-Nabi (GIKI, Pakistan)
R. Khalid (NUST, Pakistan)
L. Malgeri (CERN, Switzerland)
Mansoor-ur-Rehman (QAU, Pakistan)
B. Masood (CHEP, Pakistan)
P. Meade (Stony Brook, USA)
B. Mellado (Witwatersrand, SA)
A. Meyer (DESY, Germany)
A. Mir (COMSATS, Pakistan)
A. Paracha (NUST, Pakistan)
A. Qadir (NUST, Pakistan)
F. Tahir (COMSATS, Pakistan)

Local Organizers

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I. Ahmed (TPD)
N. Imran (CAAD)
W. A. Khan (EHEP)
R. M. Qureshi (CAAD)
R. Rasheed (CAAD)
A. Siddique (EHEP)
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Application Deadline
September 10, 2015