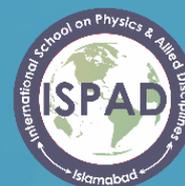




International School on Physics and Allied Disciplines

March 4 – 8, 2024, Islamabad, Pakistan



The National Centre for Physics (NCP), Islamabad, Pakistan and The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy are jointly organizing the International School on Physics & Allied Disciplines (ISPAD) in Islamabad, Pakistan from March 4-8, 2024.

Introduction

The idea of holding the ISPAD at NCP is to provide a platform for the local and the foreign participants to exchange scientific knowledge and to generate enthusiasm for science and innovation. Around 200 young Pakistani M.Phil./Ph.D. students, researchers, university faculty, and foreign invited speakers will take part in the deliberations of ISPAD-2024.

Format

Each year, the topics (technical activities) of the school are chosen keeping in view the present and future research interests of NCP, universities and national R&D institutions. The School will consist of plenary, parallel and poster sessions as well as tutorials and structured discussions relevant to various technical activities in the chosen topics. The plenary lectures contain mostly overviews of advances in the chosen areas for general audience while the lectures/talks in parallel sessions cover the recent research on the specific topics.

Topics and Coordinators

A. High Energy Physics and Cosmology (HEPC)

Physics potential of the high-luminosity phase of the LHC, Perspectives for a possible future high-Luminosity HL-LHC, Standard model and beyond searches, Properties of Higgs Boson, Flavor physics, Neutrino physics, Silicon and gaseous detectors in HEP, Statistical concepts in HEP

B. Condensed Matter Physics (CMP)

Condensed matter theory, Nanoscience and technology, Computational nanoscience, Quantum nanotechnology, Laser-matter interaction, Advanced characterization techniques, Semiconductor science and technology

C. Artificial Intelligence for Physics (AIP)

Medical image processing, Quantum machine learning, Machine and deep learning for physics applications, Physical modelling, and Simulations for robotics, data science for physicists, and Python programming

Participation

Active graduate and postgraduate students, post-doctoral researchers, faculty, and research scientists are encouraged to participate. Applicants with oral or poster presentations will be preferred. A poster competition will be conducted and the best posters will be awarded. Local hospitality will be provided to the participants. A limited number of travel grants may be provided to the foreign participants, especially those from the developing countries of the region.

How to apply

The online registration form can be accessed at: <http://www.ncp.edu.pk/ispad-2024.php>. The application form should be submitted by **Dec 15, 2023 by foreign participants** and **January 15, 2024 by local participants**. Selection will be made by the Technical Committee of ISPAD-2024. Foreign applicants are required to attach/provide scans of the first two relevant pages of their passports valid at least six months after the ISPAD-2024 event for visa facilitation purpose. These documents to be submitted to the activity secretariat by email before the deadline for registration.

Registration Fee

Faculty Members / Professionals: PKR. 8000/- **Students:** PKR. 3000/-
Outstation participants: Additional boarding and lodging charges: PKR. 3000/-

The selected applicants will be required to pay registration fee via online payment. There is no registration fee for the invited speakers and foreign participants.

Sponsors

- The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy
- KTH Royal Institute of Technology, Sweden (through Vetenskapsrådet SRL grant)
- COMSATS Headquarters, Islamabad



Directors

Qaisar Ahsan (NCP, Pakistan)
Joseph Niemela (ICTP, Italy)

Scientific Secretary

Ishaq Ahmad (NCP, Pakistan)

Technical Coordinators

Ashfaq Ahmad (HEPC)
Mohsin Siddiq (CMP)
Rana Fayyaz Ahmad (AIP)

Key Speakers (Tentative)

High Energy Physics

Thomas Muller (KIT)
Albert De Roeck (CERN)
Paris Spicas (CERN)
Frank Hartmann (KIT)
Luca Malgeri (CERN)
Patricia McBride (CERN)
Joe Butler (USA)
Luca Lista (Italy)
A. N. Baushev (Russia)
Adnan Bashir (Spain)
Xin-Nian Wang (USA)
Xiao-Gang (China)
Jacopo Ghiglieri (France)
Ismail Haki Sarpun (Turkiye)
Ilkay Turk Cakir (Turkiye)

Condense Matter Physics

Maaza Malek (South Africa)
Anders Hallén (Sweden)
Ahmed Galmed (Egypt)
Zephania Birech (Kenya)
Kyunghwan Oh (South Korea),
Sulaiman Wadi Harun (Malaysia),
P.A. Maksimov (Russia)
AleI Dang (China)
Abdoulaye Diallo (Senegal)
Raphael M Obodo (Nigeria)
Catalim Constantinescu (France)

Artificial Intelligence for Physics

Fabrice Meriaudeau (France)
Jean P. Vallee (Switzerland)
Ji Yang (China)
Suhaib Q. (Sweden)
Ahmad Athif (Malaysia)
Sajid Nisar (Japan)

Organizing Committee

Muhammad Usman
Waheed Mumtaz
Tanzeel Murtaza

Application Deadline

Dec 15, 2023

For Foreign Participants

Jan 15, 2024

For Local Participants

Collaborations & Academic Activities Directorate (CAAD)

National Centre for Physics, Shahdara Valley Road, Islamabad, Pakistan
Tel: +92-51-2077300 – (ext. 348, 520), Fax: +92-51-2077395
www.ncp.edu.pk

APS Satellite March Meeting

Jointly organized by NCP, APS & ICTP on
Wednesday 6th March, 2024