

PHYCON-25 Program Schedule

Day 1: 21-03-2025

Timeline	Activity	Session
09:20 – 09:25	• Lamp Lighting and felicitation to the guests	Session 1
09:25 – 09:30	• Introduction to PHYCON-25	
09:30 – 09:40	• HoD's address	
09:40 – 10:00	• Director's address	
10:00 – 10:50	• Plenary talk -1 by Prof. Satishchandra Ogale Director RISE, Kolkata, IISER Pune <i>Title: The evolving landscape of new energy and sustainability: unleashing the power of intelligent materials design</i>	
10:50 – 11:20	• High-Tea	
11:20 – 12: 50	• OP-1: Ms. Srijita Chakraborty (IIT Hyderabad) <i>Title: First principles studies on the defect induced magnetism in 2D van der Waals semiconductors for spintronics applications</i>	Session 2
	• OP-2: Pronoy Chakraborty (IIT Ropar) <i>Title: BCCA and Null Open Strings</i>	
	• OP-3: Hariprasad M S (Lovely Professional University, Punjab) <i>Title: A theoretical study on enhanced electron acceleration induced by besse beam and wiggler magnetic field</i>	
	• OP-4: Rajat Roy (IIT Ropar) <i>Title: Study of neutron production cross-sections in (α, n) reactions</i>	
	• OP-5: Dr. Rohit Singh (University of Allahabad) <i>Title: Renormalization-group for a nonlocal Ginzburg-Landau model and critical exponents of some uniaxial ferromagnets</i>	
	• OP-6: Sagar Shayer Yaar (IIT Ropar) <i>Title: Studying the interaction of amino acid with lipid monolayer at air-water interface using nonlinear sum frequency generation vibrational spectroscopy</i>	
	• OP-7: Shubradeep Majumder (Jawaharlal Nehru University New Delhi)	

	<i>Title: Effect of lattice boundary on Anderson localization of nonclassical light in optical waveguide arrays</i>	
12:50 – 01:10	• Quiz	
01:10 – 02:00	• Lunch	
02:00 –04:00	• Poster session • Tea	Session 3
04:00 – 04:50	• Plenary talk -2 by Prof Anand Jha (IIT Kanpur) <i>Title: Partial optical coherence: Applications in quantum state measurement and imaging</i>	Session 4
04:50 – 06:00	• OP-8: Prarena Jamwal (IIT Ropar) <i>Title: Topological and superconducting aspects of monolayer CrH₂</i>	
	• OP-9: Jhuma Dutta (IISER Mohali) <i>Title: Enhanced energy transfer in strongly coupled organic inorganic heterostructures</i>	
	• OP-10: Amanjot (IIT Ropar) <i>Title: Entrance channel effect on low-energy incomplete fusion</i>	
	• OP-11: Deepika Sharma (Himachal Pradesh University, Shimla) <i>Title: Cost-effective M-type hexaferrites: The future alternate to rare earth magnets for electric vehicles</i>	
	• OP-12: Rajat (IIT Ropar) <i>Title: Collective excitations and coarsening dynamics in spin-orbit-coupled spinor condensates</i>	
06:00 – 07:00	• Cultural event	
07:30 onwards	• Gala dinner	

Day 2: 22-03-2025

Timeline	Activity	Session
09:30 – 10:20	<ul style="list-style-type: none"> • Plenary talk -3 By Prof M Krishnamurthy Director of TIFR Hyderabad <i>Title: Converting liquid droplets to mini-accelerators using ultrafast lasers</i> 	Session 1
10:20 – 11:10	<ul style="list-style-type: none"> • Plenary talk -4 by Prof Peter Kruse McMaster University, Canada <i>Title: Chemiresistive sensors for applications in aqueous environments</i> 	
11:10 – 11:30	<ul style="list-style-type: none"> • High Tea 	
11:30 – 12:45	<ul style="list-style-type: none"> • OP-13: Rohit Duglet (Himachal Pradesh University, Shimla) <i>Title: Dielectric and magnetic tuning of Bi-substituted barium hexaferrites for microwave absorption applications</i> 	Session 2
	<ul style="list-style-type: none"> • OP-14: Rathnakaran S R (IIT Ropar) <i>Title: Ancilla measurement-based Quantum Otto engine using double-pair spin architecture</i> 	
	<ul style="list-style-type: none"> • OP-15: Sachin Sharma (Himachal Pradesh University, Shimla) <i>Title: Compositional optimization and morphotropic phase boundary evolution in $(Ba_{0.95}Ca_{0.05})(Sn_xTi_{1-x})O_3$ ceramics for sustainable green energy storage</i> 	
	<ul style="list-style-type: none"> • OP-16: Love Kumar Sharma (IIT Ropar) <i>Title: Spatiotemporal soliton in a parabolic multimode fiber</i> 	
	<ul style="list-style-type: none"> • OP-17: PAWAN KUMAR (IIT Ropar) <i>Title: Buckling instability mediated wetting behavior of low-energy ion irradiated polydimethylsiloxane (PDMS) films</i> 	
	<ul style="list-style-type: none"> • OP-18: Anish Sharma (NIT Sikkim) <i>Title: Coherence dynamics of maximally coherent spin qubit in random spin environments: Application to single-qubit magnetometry</i> 	
12:45 – 01:15	<ul style="list-style-type: none"> • TP-1: Nexus Analytical • TP-2: Anatech Instrument • TP-3: New Age Instruments 	
01:15 – 02:00	<ul style="list-style-type: none"> • lunch 	

02:00 – 04:00	<ul style="list-style-type: none"> • Poster session Tea 	Session 3
04:00 – 04:50	<ul style="list-style-type: none"> • Plenary talk- 5 by Prof Raghunath Sahoo (IIT Indore) <i>Title: Recreating the universe at the large hadron collider</i> 	Session 4
04:50 – 06:00	<ul style="list-style-type: none"> • OP-19: Gaurav Bassi (IIT Ropar) <i>Title: High performance PtSe₂/MoS₂ heterostructure for broadband and ultrafast photodetector</i> 	
	<ul style="list-style-type: none"> • OP-20: Ashish (IIT Ropar) <i>Title: Room temperature single photon source for quantum technologies</i> 	
	<ul style="list-style-type: none"> • OP-21: Balwinder Singh (Punjabi University Patiala) <i>Title: Investigation of L- Shell X-Ray Relative Intensities in ⁸²Pb Excited by High-Energy Bq+Ions at 55 and 60 MeV</i> 	
	<ul style="list-style-type: none"> • OP-22: Nancy Ghangas (IIT Ropar) <i>Title: Dynamic Control of Light Localization in Photonic Crystals</i> 	
06:00 onwards	<ul style="list-style-type: none"> • OP-23: Abhishek Kumar (IIT Ropar) <i>Title: Ultra-low magnetic damping in epitaxial doped lithium spinel ferrite films</i> 	
	<ul style="list-style-type: none"> • Awards, Vote of thanks 	

***OP**: Oral Presentation

***TP**: Technical Presentation

***PP**: Poster Presentation

Venue:

Plenary talks and Oral Presentations — Senate Hall IIT Ropar

Poster Presentation — Auditorium Foyer