

Frontier Symposium in Physics (FS-PHY 2025)

Program Schedule

Venue: Seminar hall, Physical Sciences Building(PSB) 3201

Day 1: Friday, 17-01-2025

Lec. No.	Time	Session Description
	11:30 - 14:00	Registration
	14:30	Inaugural Address by Prof. J. N. Moorthy The Director, IISER Thiruvananthapuram
		Session 1: Chair: Prof. Ramesh C. Nath
1	14:50 - 15:15	Prof. Soumitro Banerjee , IISER Kolkata Is our Sun going through a bifurcation?
	15:15 - 15:30	Tea break
		Special Session
	15:30-16:30	Professor M. V. George Memorial Endowment Lecture by Prof. George K. Thomas , IISER Thiruvananthapuram Exploring Light-Matter Interactions at the Nanoscale
		Session 2: Chair: Dr. Nitin Yadav
2	16:45 - 17:10	Prof. Arun Kumar Pati , TCG CREST Kolkata Quantum Speed limit and Quantum Battery
3	17:10 - 17:35	Prof. P. Ramadevi , IIT Bombay Knots, links, three-manifolds from Chern-Simons Field theory.
4	17:35 - 18:00	Prof. Ranjith Padinhateeri , IIT Bombay Physics of DNA folding and fate of living cells
	18:00 - 19:00	Poster Session + Tea

Day 2: Saturday, 18-01-2025

		Session 3: Chair: Dr. D. V. Senthilkumar
5	9:00 - 9:25	Prof. Gagan Mohanty , TIFR Bombay Stories from the energy frontier
6	9:25 - 9:50	Prof. Shankar Kumar Selvaraja , IISc Bangalore Photonic Integrated Circuits a Platform for Connectivity, Computing and Sensing
7	9:50 - 10:15	Prof. Rajesh Ganapathy , JNCASR Bangalore Unveiling the hidden structural order in dense liquids and glasses
8	10:15 - 10:40	Prof. Anil Shaji , IISER Thiruvananthapuram Unravelling why mixed state quantum computation works
	10:40 - 11:10	Tea break
		Session 4: Chair: Prof. Joy Mitra
9	11:10 - 11:35	Prof. Bivas Saha , JNCASR Bangalore Polaritons for Near-UV-to-Far-Infrared Nanophotonics

10	11:35 - 12:00	Prof. Karthik V. Raman , TIFR Hyderabad In-Plane Anisotropy of Magnetic Textures Revealed by Planar Hall Effect
11	12:00 - 12:25	Prof. Anandmayee Tej , IIST Thiruvananthapuram Probing Planetary Atmospheres
	12:25 - 13:30	Lunch
	13:30 - 14:30	Poster Session
Session 5: Chair: Dr. Suraj S. Hegde		
12	14:30 - 14:55	Prof. Rajesh V Nair , IIT Ropar Exploring the emission properties of quantum emitters in diamond
13	14:55 - 15:20	Prof. Parinda Vasa , IIT Bombay Emitters in proximity of plasmonic nano-cavity
14	15:20 - 15:45	Prof. Sunil Nair , IISER Pune When magnons drag electrons: the phenomena of interfacial magnon drag
	15:45 - 16:15	Tea break
Session 6: Chair: Dr. Souvik Paul		
15	16:15 - 16:40	Prof. Dibyendu Nandi , IISER Kolkata Influence of Stellar Magnetism on Planetary Environments and Habitability
16	16:40 - 17:05	Prof. Amal Medhi , IISER Thiruvananthapuram Convolutional restricted Boltzmann machine correlated variational wave function for the Hubbard model
17	17:05 - 17:30	Prof. Subhro Bhattacharjee , ICTS Bangalore Variational wave-function for correlated metals
	17:35 - 19:00	Poster Session + Tea

Day 3: Sunday, 19-01-2025

Session 7: Chair: Dr. Shabnam Iyyani

18	9:00 - 9:25	Prof. Madhu Thalakulam , IISER Thiruvananthapuram Macroscopic manifestation of backaction due to quantum tunnelling of electrons
19	9:25 - 9:50	Prof. Dipankar Banerjee , IIST Thiruvananthapuram Variability of our nearest star the sun as studied from Aditya L1 observatory
20	9:50 - 10:15	Prof. Pallavi Bhat , ICTS Bangalore Magnetic reconnection and particle acceleration
21	10:15 - 10:40	Prof. Ranjit Kumar Nanda B , IIT Madras The new kid in the magnetic Horizon and the name is altermagnetism: What is the story so far?
	10:40 - 11:10	Tea break
Session 8: Chair: Dr. Tuhin Maity		
22	11:10 - 11:35	Prof. Rajeev Kini , IISER Thiruvananthapuram THz phonon amplification via the Cerenkov mechanism in an acoustic cavity
	11:35 - 12:30	Flash Talk
	12:30 - 13:00	Awards and Concluding Session