ICFO-TIFRH Frontiers Research School: Hot topics in Quantum and Nanophotonics

October 23, 2024 to October 25, 2024
TIFRH Hyderabad (India)

The school will feature experts from **ICFO**, **TIFRH** and invited speakers in an **intensive 3-day workshop** directed to students wishing to enter the vibrant field of Photonic Sciences. Topics covered will include:?

Fundamentals of Quantum Optics
Atom Quantum Optics
Molecular Nanophotonics
Soft-Photonics
Quantum Measurements
Quantum Information

Participants will gain a strong understanding of basic concepts, an introduction to the current state of the art in these topics and mingle with top scientists from leading institutions.

Lecturers

Prof. S. Lakshmi Bala (Indian Institute of Technology Madras)
Prof. Morgan Mitchell (ICFO)
Dr. G. Rajalakshmi (Tata Institute of Fundamental Research Hyderabad)
Dr. Arun S (Indian Institute of Technology Bombay)
Prof. Niek van Hulst (ICFO)
Dr. Anku Guha (TIFR Hyderabad Alumni, ICFO)
Prof. G. V. Pavan Kumar (Indian Institute of Science Education and Research Pune)
Dr. Vindhiya Prakash (ICFO Alumni, Centre for Quantum Technologies Singapore)
Prof. Saikat Ghosh (Indian Institute of Technology Kanpur)
Dr. Sankar Davuluri (BITS Pilani, Hyderabad)
Prof. Antonio Acin (ICFO)
Prof. C. M. Chandrashekar (Indian Institute of Sciences Bengaluru)
Dr. Deepak Jain (Indian Institute of Technology Delhi)
Prof. Mustansir Barma (Tata Institute of Fundamental Research)

Location

Hyderabad is home to historic marvels such as the Birla Temple, Charminar and Golkonda Fort. It is among the most diverse, harmonious, and vibrant cities in India with rich Science and Technology base and thriving start-up ecosystem. The school will be locally organized by the Tata Institute of Fundamental Research (TIFR) Hyderabad, which is one of the premie research institutes in India, together with Hyderabad Photonics Initiative (HyPhI). It is locat d near the central University of Hyderaba

. The TIFR Hyderabad campus is situated a

36/P, Gopanpally Serilingampally Mandal, Ranga Reddy District, Hyderabad 500 046. Participants will be hosted close to the campus. Back and forth daily transportation to TIFR Hyderabad will be arranged in buses provided by the school. Additional information relate to arrive can be found at[How to Reach TIFR Hyderabad](#).

School Fees, Registration & Accommodation - REGISTRATION IS NOW CLOSED.

MSc: Rs 4000/-

PhD and Postdoc: Rs 6000/-

Accommodation on twin-sharing basis for three nights and catering will be provided for all students accepted to attend the workshop in-person.

Eligibility

The school is open to registration from interested students and researchers worldwide. We welcome applications from individuals worldwide with a variety of backgrounds, including optics, physics, mathematics, electronics, engineering, chemistry and biology. Persons with disabilities are strongly encouraged to apply. There are no restrictions of citizenship or gender.

Candidates must have an excellent academic record, and a strong commitment for scientific research. Priority will be given to masters-level and advanced undergraduate students, although PhD students and young researchers are welcome to apply.

Up to 2 SPIE@ICFO Chair Research Internships to conduct a project with an ICFO research group may be offered to selected outstanding students attending the school.

How to Apply

Applicants must submit:

A Curriculum Vitae, including contact details

Scanned copies of your complete (Bachelor and Master equivalent) University academic transcripts in English or Spanish

A one-page (max.) letter describing your background, research interests and motivation for attending the school

Title & abstract for a proposed contributed poster

Applications must be submitted online and all required application material must be complete in order to be considered.
Registration is now closed. Successful applicants will be notified during the week of 9 September 2024.
For any questions, please contact us at frontiers@icfo.eu
Note: If you are from a country with visa-obligations to attend the school, please be advised to already inquire (only inquire) regarding the documentation necessary (usually an invitation letter, plus travel and accommodation bookings) and the potential appointment-situation at the local Embassy/ visa-office.
Questions should be directed to hyphi@tifrh.res.in

About

International Schools on the Frontiers of Light aim at giving talented young researchers and students worldwide a first introduction to a thematic research area and a taste of an international research environment. The schools incorporate a dynamic and social learning environment beyond participating in lectures, including e.g. group discussions, direct interactions with the lecturers, student talks and poster presentations.
International Frontiers Schools aim to be inclusive and welcoming, and adhere to ICFO's policy on Diversity in Conferences, Meetings and Workshops.
The organizers do not tolerate any type of conduct or behavior considered harassment or bullying and follow ICFO guidelines on Harassment & Bullying.

Participating Institutions

ICFO: ICFO - the Institute of Photonic Sciences, is a young research institution that aims to advance the very limits of the science and technology of light, tackling important challenges faced by society at large in all areas of life, including health, energy, information, safety, security and caring for the environment. ICFO is a member of BIST, the Barcelona Institute of Science and Technology.[LINK: https://www.icfo.eu/]

Tata Institute of Fundamental Research (TIFR) Hyderabad: Tata Institute of Fundamental Research is a National Centre of the Government of India, funded by the Department of Atomic Energy, as well as a deemed University. The Institute was founded in 1945 with support from the Sir Dorabji Tata Trust under the vision of Dr Homi Bhabha. Tata Institute of Fundamental Research (TIFR) is one of the premier institutes of scientific research in India that works at the very cutting edge of world science, with several specialized centers including National Centre for Radio Astrophysics (NCRA), International Centre for Theoretical Sciences (ICTS), National Centre for Biological Sciences (NCBS) and Homi Bhabha Centre for Science Education (HBCSE). TIFR Hyderabad is an ambitious new campus, spreading over ~200 acres, adjacent to the University of Hyderabad, hosting various branches of

fundamental science and technology. [LINK: https://www.tifrh.res.in/]

Scientific Organizing Committee: Dr. Chaitanya Kumar Suddapalli (TIFR Hyderabad), Pro
. Vandana Sharma, (IIT Hyderabad), Prof. M. Krishnamurthy (TIFR Hyderabad), Dr. Har
sh Krishnamoorthy, (TIFR Hyderabad), Dr. Prashant Kumar Singh (TIFR Hyderabad), Prof. Ro
ert Sewell (ICFO), Prof. Goutam K Samanta (PRL Ahmedabad), Dr. Ram Gopal (TIFR Hyder
bad), Dr. G. Rajalakshmi (TIFR Hyderabad), Dr. Pranav R. Shirhatti (TIFR H
Advisory Committee : Prof. Subhashish Dutta Gupta (TIFR Hyderabad), Prof. G. Ravindr
Kumar (TIFR Mumbai), Prof. D. Narayan Rao (University of Hyderabad). ?