



Indo-French Workshop on Disruptive Nano-photonics

Sponsored by

**Indo-French Centre for the
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(IFCPAR/CEFIPRA)**



CEFIPRA



Organized by



**CSIR-Central Scientific
Instruments Organisation
Chandigarh, India
&
Institut Fresnel
Marseille, France**

June 14-16, 2023

ABOUT THE ORGANIZERS:

**CSIR-Central Scientific Instruments
Organisation, Chandigarh, India**

CSIR-CSIO is a constituent unit of the Council of Scientific and Industrial Research (CSIR), which is India's largest research and development organization. CSIO has been involved in the design and development of a wide range of scientific and industrial instruments in the niche areas of optics and photonics, agrionics, sensors, energy management, biomedical, and material science.

CNRS - Institut Fresnel, Marseille, France

The Fresnel Institute is supported by several institutions, Aix-Marseille Université, CNRS and Centrale Marseille. With about two hundred persons working in the institute, the research topics cover four axes: electromagnetic modelling and simulation, nanophotonics and optical components, information processing and random waves, and advanced imaging and life science. The synergies between these axes are very strong and give rise to novel projects, often at the frontier between different disciplines. These projects can be fundamental or applied, with a strong potential for innovation.

COMMITTEE:

Patron:
Prof. S. Anantha Ramakrishna, Director CSIR-CSIO

Conveners:
Dr. Sanjeev Soni, Sr. Principal Scientist, CSIR-CSIO
Dr. Jerome Wenger, CNRS research director, Institut Fresnel
Dr. Samir K Mondal, Sr. Principal Scientist, CSIR-CSIO

Local Organising Committee

- Dr. Sudipta Sarkar, Sr. Pr. Scientist
- Dr. Umesh Kumar Tiwari, Sr. Pr. Scientist.
- Dr. Rajkumar, Pr. Scientist.
- Dr. Bhargab Das, Pr. Scientist
- Dr. Sanjit Debnath, Sr. Scientist
- Dr. Nalini Pareek, Sr. Scientist
- Dr. Satya Pratap Singh, Scientist
- Dr. Dhairya Singh Arya, Scientist
- Dr. Vinod Parmar, Scientist
- Ms. Ishani, Scientist
- Dr. Vinod Mishra, Sr. Technical Officer
- Mr. Omendra Singh, Technical Officer



सीएसआईआर - केंद्रीय वैज्ञानिक उपकरण संगठन

**CSIR-Central Scientific Instruments Organisation
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Day 1 June 14, 2023 (Wednesday)	
9:00 AM to 10:00 AM	Registration
10:00 AM to 10:30 AM	Inauguration, Address by Nitin Seth, Director CEFIPRA
10:30 AM to 11:00 AM	Tea Break
Session Chairs: S A Ramakrishna, Andrei V Kabashin	
11:00 AM to 11:30 AM	Erik Dujardin Institut Carnot de Bourgogne - Dijon Topic: Interconnect-free multibit arithmetic and logic units in reconfigurable plasmonic cavities
11:30 AM to 12:00 PM	Bijoy K Das Indian Institute of Technology Madras Topic: Silicon Photonics: Technology and Applications
12:00 PM to 12:30 PM	S. Anantha Ramakrishna CSIR-Central Scientific Instruments Organisation Chandigarh Topic: IR Metamaterials
12:30 PM to 1:00 PM	Tapajyoti Das Gupta Indian Institute of Science Bangalore Topic: Self assembled glass and liquid metal particles for large area metasurfaces and reflective displays
Lunch and Poster Session-I (1:00 PM to 2:30 PM)	
Session Chair: Alexandre Baron	
2:30 PM to 3:00 PM	Andrei V Kabashin LP3 Aix Marseille Université Topic: TBA
3:00 PM to 3:30 PM	Renu John Indian Institute of Technology Hyderabad Topic: Nano-Microscopy-Biological applications
3:30 PM to 4:00 PM	Kamal P Singh Indian Institute of Science Education and Research Mohali Topic: Nanoprocessing and heterostructuring silk with femtosecond pulses
4:00 PM to 4:30 PM	Tea Break and networking session
4:30 PM to 5:00 PM	Rajesh V Nair Indian Institute of Technology Ropar Topic: Nanophotonics Interfaces for diamond color centers
5:00 PM to 5:30 PM	Shriganesh Prabhu Tata Institute of Fundamental Research, Mumbai Topic: Development of Tera-Hertz (THz) Spectroscopy and Applications to the study of Materials
5:30 PM to 6:00 PM	Panel Discussion & Deliberations

Day 2 June 15, 2023 (Thursday)	
Session Chair: Bijoy K Das	
9:30 AM to 10:00 AM	George Thomas Indian Institute of Science Education and Research Thiruvananthapuram Topic: Plasmon Assisted Emission and Raman Signal Enhancement: From Ensemble to Single Particle investigations
10:00 AM to 10:30 AM	Alexandre Baron Bordeaux university Topic: Plasmonic clusters: Kerker regime and homogenization problems
10:30 AM to 11:00 AM	Amitava Patra Institute of Nano Science and Technology Mohali Topic: Exciting Nanomaterials for Photonic and Optoelectronics
11:00 AM to 11:30 PM	Tea Break
Session Chair: Erik Dujardin	
11:30 AM to 12:00 PM	Kaizad Rustomji Insitutit Fresnel Marseille Topic: Microwave analogues for dipole-dipole interactions
12:00 PM to 12:30 PM	Sushil Mujumdar Tata Institute of Fundamental Research, Mumbai Topic: Enhanced functionality of localization-based lasers using exceptional points
12:30 PM to 1:00 PM	Sanjeev Soni Central Scientific Instruments Organisation Chandigarh Topic: Plasmonic photothermal phenomenon in biomedical applications
Lunch and Poster Session-II (1:00 PM to 2:30 PM)	
Session Chair: Andrei V Kabashin	
2:30 PM to 3:00 PM	Benjamin Vest Institut d'Optique – Palaiseau Topic: Light-emitting metasurfaces
3:00 PM to 3:30 PM	Samir K Mondal Central Scientific Instruments Organisation Chandigarh Topic: Optical nanotip and morphology dependent resonance
3:30 PM to 4:00 PM	R S Jayasree Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum Topic: Optical imaging and biophotonics sensors
4:00 PM to 4:30 PM	Tea Break and networking session
4:30 PM to 5:00 PM	Nikhil Ranjan Das University of Calcutta, Kolkata Topic: Quantum Dot Photonics for Biosensing and Bioimaging
5:00 PM to 5:30 PM	Panel Discussion, Deliberations & Recommendations

Day 3 June 16, 2023 (Friday)	
Session Chair: Kaizad Rustomji	
9:30 AM to 10:00 AM	Quanbo Jiang Université de technologie de Troyes Topic: Go beyond the limitations of optical tweezers for trapping objects from micron to nanosize
10:00 AM to 10:30 AM	Dibakar Roy Chowdhury Mahindra University, Hyderabad Topic: Terahertz Plasmonic Metamaterials
10:30 AM to 11:00 AM	Ramachandrarao Yalla University of Hyderabad, Hyderabad Topic: Nanophotonic platforms for Quantum Photonics
11:00 AM to 11:30 AM	Tea Break
Session Chair: Benjamin Vest	
11:30 AM to 12:00 PM	Tapasi Sen Institute of Nano Science and Technology Mohali Topic: Nano Biophotonics - single molecule imaging
12:00 PM to 12:30 PM	Rajesh Sharma Guru Ghasidas Vishwavidyalaya, Bilaspur Topic: Efficient Designs of Terahertz Quantum-Cascade Lasers
12:30 PM to 1:00 PM	Deliberations & Recommendations and valedictory session
Lunch	



<https://forms.gle/ZxkVLTjKSQZzgHFW8>

QR code for Registration