

# SCOP 2022

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### Schedule

**Day 1: Wednesday, September 28, 2022**

**Venue: K. R. Ramanathan Auditorium, PRL**

8:45 AM - 9:00 AM	<b>Welcome Address</b>	
<b>Session I: Nonlinear optics &amp; their application</b>		
<b>Chair:</b> Sandeep Singh / Saumya Sarkar		
9:00 AM - 9:25 AM	<b>Invited Talk ( IT-1 )</b>	
25 + 5 min	Dr. Chaitanya Kumar Suddapalli	<i>Mid-infrared optical parametric oscillators: challenges and advantages</i>
9:30 AM - 9:55 AM	<b>Invited Talk ( IT-2 )</b>	
25 + 5 min	<a href="#">Prof. Sergio Carbajo (Online)</a>	<i>Frontiers in Ultrafast and Quantum Light-Matter Interactions</i>
10:00 AM - 10:25 AM	<b>Invited Talk ( IT-3 )</b>	
25 + 5 min	Dr. Rakesh K. Singh	<i>Correlation imaging with higher order interferometers</i>
10:30 AM - 10:40 AM	<b>Student Talk ( ST-1 )</b>	
10 + 2 min	Akansha Tyagi	<i>Dispersion-less all reflective attosecond resolved delay line for ultrafast metrology</i>
<b>10:45 AM - 11: 15 AM</b>	<b><i>Tea Break</i></b>	
11:15 AM - 11:40 AM	<b>Invited Talk (IT-4)</b>	
25 + 5 min	Dr. Amit D. Lad	<i>Ultra-Intense Laser Produced Shock Waves</i>
11:45 AM - 11:55 AM	<b>Student Talk (ST-2)</b>	
10 + 2 min	Ravishankar Sugumar	<i>Angular distribution of electrons from a collimated aerosol jet aerodynamic lens</i>
12:00 PM - 12:25 PM	<b>Invited Talk (IT-5)</b>	
25 + 5min	Dr. Arijit Kumar De	<i>Optical trapping with femtosecond pulses: Excitements, challenges and opportunities</i>
<b>12:30 PM - 02:30 PM</b>	<b><i>Lunch + Poster Presentation</i></b>	

<b>Session II: Quantum Optics and Quantum Communication I</b>		
<b>Chair:</b> Satyajee Patil		
02:30 PM-02:55 PM	<b>Invited Talk (IT-6)</b>	
25 + 5 min	Prof. Mehul Malik	<i>Programming high-dimensional quantum optical circuits inside a multi-mode fibre</i>
03:00 PM-03:25 PM	<b>Invited Talk (IT-7)</b>	
25 + 5 min	Dr. Bhaskar Kanseri	<i>Photonic quantum secure communication: Activities and prospects</i>
<b>03:30 PM - 03:55 PM</b>	<b><i>Tea Break</i></b>	
4:00 PM - 5:00 PM <b>Venue:</b> Nano Sims	Amrut Vyankhyan <b>Prof. Siddharth Ramachandran</b>	
05:00 PM-06:00 PM	<b>Panel Discussion</b>	
<b>06:00 PM - 06:20 PM</b>	<b><i>Tea Break</i></b>	
<b>07:45 PM – 09:00 PM</b>	<b><i>Conference Dinner</i></b>	

----- *End of Day 1* -----

## Day 2 : Thursday, September 29, 2022

<b>Session III: Quantum Optics and Quantum Communication II</b>		
<b>Chair:</b> Sarika Mishra / Vardaan Mongia		
9:00 AM - 9:25 AM	<b>Invited Talk ( IT-8 )</b>	
25 + 5 min	Prof. Ebrahim Karimi	
09:30 AM - 09:55 AM	<b>Invited Talk ( IT-9 )</b>	
25 + 5 min	Dr. Jasleen Lugani	<i>Integrated photonics for quantum information processing</i>
10:00 AM - 10:10 AM	<b>Student Talk ( ST-3 )</b>	
10 + 2 min	Vishal Sharma	<i>Analysis of Information Reconciliation for Quantum Key Distribution</i>
10:15 AM - 10:25 AM	<b>Student Talk ( ST-4 )</b>	
10 + 2 min	Sreeshna Subhash	<i>Quantum back action nullifying meter to improve the sensitivity of squeezed light optomechanical interferometer</i>
<b>10:30 AM – 11:00 PM</b>	<b><i>Tea Break</i></b>	
11:00 AM - 11:25 AM	<b>Invited Talk (IT-10)</b>	
25 + 5 min	Dr. Anindya Banerji	<i>Distributing entanglement over a fiber network and publicly verifiable quantum randomness</i>
11:30 AM - 11:55 AM	<b>Invited Talk (IT-11)</b>	
25 + 5min	Dr. Anirban Pathak	<i>Secure quantum communication and computation: Which tasks can be realized and/or commercialized in near future?</i>
12:00 PM - 12:25 PM	<b>Invited Talk (IT-12)</b>	
25 + 5 min	Dr. Haw Jing Yan	<i>National Quantum-Safe Network - A Singapore initiative</i>
12:30 PM - 12:55 PM	<b>Invited Talk (IT-13)</b>	
25 + 5 min	Dr. Shouvik Ghorai	<i>1-sided device independent continuous-variable QKD with discrete modulation</i>
<b>01:00 PM - 02:30 PM</b>	<b><i>Lunch + Poster Presentation</i></b>	

<b>Session IV: Ultrafast Optics</b>		
<b>Chair: Rituparna / Pranav Bhardwaj</b>		
02:30 PM-02:45 PM	<b>Student Talk (ST-5)</b>	
10+2 min	Sonali Khanna	<i>Boosting electron emission from liquid droplet microplasma</i>
02:50 PM-03:15 PM	<b>Invited Talk (IT-14)</b>	
25 + 5 min	Dr. Gopal Dixit	<i>All-Optical Ultrafast Valley-Switch in Two-Dimensional Materials</i>
<b>03:20 PM - 03:30 PM</b>	<b><i>Tea Break</i></b>	
03:30 PM - 03:55 PM	<b>Invited Talk (IT-15)</b>	
25 + 5 min	Dr. Thierry Ruchon	<i>Extreme nonlinear optics with beams carrying angular momenta</i>
04:00 PM-04:25 PM	<b>Invited Talk (IT-16)</b>	
25 + 5 min	Prof. Marcos Dantus	<i>Linear and Nonlinear Optical Interference in Ultrafast Science</i>
04:30 PM-04:55 PM	<b>Invited Talk (IT-17)</b>	
25 + 5 min	Dr. Kamal P. Singh	<i>Ultrathin attosecond delay line for IR-IR control of harmonics</i>
05:00 PM - 05:10 PM	<b>Student Talk (ST-6)</b>	
10+2 min	Rambabu Rajpoot	<i>High-order harmonic generation by sub-cycle laser pulses and associated scaling laws</i>
05:15 PM - 05:25 PM	<b>Student Talk (ST-7)</b>	
10+2 min	Sanket Sen	<i>Dissociation dynamics of C 1s Auger decayed doubly charged camphor molecule using soft x-ray radiation</i>
05:30 PM - 06:00 PM	<b>Invited talk (IT-18)</b>	
25+5 min	Prof. Federico Capasso	<i>Structured Light and Dark by metaoptics</i>
<b>06:00 PM - 06:20 PM</b>	<b><i>Snacks</i></b>	
06:30 PM - 07:30 PM	<b>Public Lecture II : Prof. Anil Bhardwaj</b>	
<b>07:45 PM - 09:00 PM</b>	<b><i>Director's Dinner</i></b>	

----- *End of Day 2* -----

## Day 3 : Friday, September 30, 2022

<b>Session V: Nano-photonics</b>		
<b>Chair:</b> Chahat Kaushik / Indrajit		
09:00 AM-09:25 AM	<b>Invited talk (IT-19)</b>	
25 + 5 min	Prof. Arup Lal Chakraborty	
09:30 AM - 09:40 AM	<b>Student talk (ST-8)</b>	
10+2 min	Krishna Joshi	<i>Observation of exceptional points in Anderson-localizing systems</i>
09:45 AM-09:55 AM	<b>Student talk (ST-9)</b>	
25 + 5 min	Anagha Sreedharan	<i>Rotation of polarization and spin modes in a uniaxial crystal plate</i>
<b>10:00 AM – 10:30 PM</b>	<b>Tea Break</b>	
<b>Session VI: Optics in Interdisciplinary Sciences</b>		
<b>Chair:</b> Naval / Namita		
<b>Venue:</b> Nano-SIMS Auditorium		
10:30 AM - 10:55 AM	<b>Invited Talk (IT- 20)</b>	
25 + 5 min	Dr. Joe Philip Ninan	<i>Precision calibration of astronomy spectrographs using Laser Frequency Combs</i>
11:00 AM-11:10 AM	<b>Student Talk (ST-10)</b>	
10 + 2 min	Aravind K.	<i>Polarimetric observation of cometary bodies.</i>
11:15 AM-11:40 AM	<b>Invited Talk (IT-21)</b>	
25 + 5 min	Dr. Ravindar Kumar Banyal	<i>High-contrast Imaging &amp; Spectroscopy of Extrasolar Planets</i>
11:45 AM-12:10 PM	<b>Invited Talk (IT-22)</b>	
25 + 5 min	Dr. Saurabh Raj	<i>A single molecule insight into DNA-protein interactions</i>
12:15 PM - 12:40 PM	<b>Invited Talk (IT-23)</b>	
25 + 5 min	Dr. Sankar De	<i>Vector magnetometry with electromagnetically induced transparency</i>
12:45 PM - 12:55 PM	<b>Student Talk (ST-11)</b>	
10 + 2 min	Sandeep Kumar	<i>Ultrafast photothermal THz-hysteresis in a spintronic emitter</i>
<b>01:00 PM - 02:30 PM</b>	<b>Lunch</b>	

----- End of Conference -----