

Contemporary Trends in Optics 2017: From Atoms to Stars (CoOpt-2017)

Venue: Room-G06, Lecture Hall Complex, IISER Kolkata

Schedule: 18/12/17

08:00hr – 09:30hr: [Registration + Breakfast \(at venue\)](#)

09:30hr – 10:00hr: Inaugural Session

Session 1: Classical Optics

Chair: Prof. Ayan Banerjee

10:00hr – 10:45hr: Prof. Giovanni Volpe

Active Matter in Complex and Crowded Environments: Optical Manipulation, Phototaxis and Nonequilibrium Physics

10:45hr – 11:30hr: Prof. Subhasish Dutta Gupta

Two photon interference with Tamm states and Bloch surface waves

[11:30hr – 11:45hr: Tea/ Coffee break \(at venue\)](#)

11:45hr – 12:30hr: Prof. Sushil Mujumdar

Anderson localization and Levy sums in random lasers

12:30hr – 12:45hr: Sushanta Kumar Pal

Generation of lattice of C-points at intensity extrema by multiple beam interference

12:45hr – 13:00hr: Sudipta Saha

Enhancing transverse spin and transverse spin-momentum in scattering

[Lunch + Poster1: 13:00hr – 15:00hr \(at venue\)](#)

Session 2: Quantum Optics

Chair: Prof. Prasanta K. Panigrahi

15:00hr – 15:45hr: Prof. Fabien Bretenaker (Webinar)

Low noise lasers and amplifiers for microwave photonics applications

15:45hr – 16:30hr: Prof. Saikat Ghosh

Probing, quantifying and freezing coherence in an ensemble of atoms

16:30hr – 16:45hr: High Tea (at venue)

16:45hr – 17:30hr: Prof. Bimalendu Deb

Phase operators in optics and matter-waves

17:30hr – 18:15hr: Prof. S. Lakshmi Bala

Lessons from Quantum Expectation Values

18:15hr – 18.30hr: Prabodh Kumar Pandey

Noisy-data discrimination and filter-specification using error estimates in universal back-projection based photo-acoustic tomography

19:00hr – 22:00hr: Banquet Dinner (Director's Residence)

Schedule: 19/12/17

08:30hr – 09:30hr: Breakfast (at venue)

Session 3: Biophotonics

Chair: Prof. Nirmalya Ghosh

09:30hr – 10:15hr: Prof. Renu John

Quantitative phase microscopy: Clinical Applications

10:15hr – 11:00hr: Prof. Shourya Dutta Gupta

Fast and non-destructive diagnosis using plasmon enhanced infrared absorption spectroscopy

11:00hr – 11:15hr: Tea/ Coffee break (at venue)

11:15hr – 12:00hr: Prof. Basudev Roy

Optical Tweezers for determination of rotation in the mesoscopic domain

12:00hr – 12:15hr: Subhrokoli Ghosh

Novel Applications using Micro-Bubbles in Thermo-optical Tweezers

12:15 – 12:30hr: Mandira Pal

Weak value amplification of Geometric Spin Hall shift of light beam

12.30hr – 12.45hr: Shuvojit Pal

Intriguing Physics of Two Viscously Coupled Brownian Harmonic Oscillators

Lunch + Poster2: 12:45hr – 14:30hr (at venue)

Session 4: Space Optics

Chair: Dr. Rohan Eugene Louis

14:30hr – 15:15hr: Prof. A N Ramprakash

Observables, Coherence and Polarization

15:15hr – 16:00hr: Prof. Prashanth C Upadhya

Atomic Clocks Based on Coherent Population Trapping in Alkali Atoms

16:00hr– 16:15hr: High Tea (at venue)

16:15hr – 17:00hr: Prof. Shibu K Mathew

Solar Magnetic field measurements

17:00hr – 17:15hr: Debjit Roy

Single Particle Spectroscopy of CdSe Based Core/Gradient Alloy Shell/Shell Quantum Dots: In-depth Analysis of Suppressed Blinking Dynamics

17:15hr – 17:30hr: Abhijit Roy

Characterizing the Propagation of an Aberrated Speckle Pattern

17:30hr – 18:00hr: Concluding remarks and certificate/prize distribution

19:00hr– 21:30hr: Dinner (at venue)