

Hybrid Workshop on Light-Matter Interaction & Quantum Coherence Effects

School of Quantum Physics and Matter, IPM

23 April 2025 (3 Ordibehesht 1404)

| Time | Speaker | Title of talk |
|---------------|--|---|
| 8:50 – 9:00 | Azadeh Faridi (IPM, Iran) | Opening |
| 9:00 - 9:50 | MirFaez Miri (University of Tehran, Iran) | The interaction of light and hybrid quantum dot-nanoparticle system |
| 9:50 – 10:40 | Seyed Nader Seyed Reihani (Sharif University, Iran) | How to measure permeability of materials at optical frequencies: Optical Tweezers study |
| 10:40 – 11:10 | Break | |
| 11:10 – 12:00 | Ali Morteza Pour (University of Guilan, Iran) | Harnessing Light-Matter Interaction via Frequency Modulation: Quantum Speed Limit, Synchronization, and Quantum Batteries |
| 12:00 – 13:30 | Lunch | |
| 14:20 – 15:10 | Habib Rostami (University of Bath, UK) | Light as a Probe and Drive: Ultrafast and Nonlinear Phenomena in Quantum Materials |
| 13:30 – 14:20 | Sajad Dabiri (Shahid Beheshti University, Iran) | Dynamical Nonlinear Optical Response in Time-Periodic Quantum Systems |
| 15:10 – 15:40 | Break | |
| 15:40 – 16:30 | Hamid Reza Hamed (Vilnius University, Lithuania) | Optical vortices of slow light using tripod atom-light coupling |
| 16:30 – 16:40 | Reza Asgari (IPM, Iran) | Closing |