

6th National Symposium on Light Matter Interaction (LMI-2022) Atomic and Laser Physics, CoE Physics National Centre for Physics (NCP), Islamabad

DAY 1 Monday (Sep. 12, 2022)		
Sep. 12, 2022		Inaugural Session
09:15 – 09:20	<i>Recitation</i>	
09:20 – 09:25	<i>Opening Remarks by M. Aslam Baig (ALPD-NCP)</i>	
09:25 – 09:30	<i>Welcome Address by Mansoor Hameed Inayat (DG NCP)</i>	
09:30 – 10:00	M. Shahid Rafique (UET LHR)	Bacterial retention on femtosecond laser modified surfaces.
10:00 – 10:30	Ghulam Shabbir Naz (PIEAS, Islamabad)	Laser-Driven Plasmas: a key gateway to understand High Energy Density Physics.
10:30 – 11:00	Tea BREAK	
Sep. 12, 2022		Technical Session I
11:00 – 11:20	Afshan Irshad (PIEAS, Islamabad)	Ultrafast spectroscopy of InGaN/GaN-based hetero-structures to study the Optical and mode-locking properties Fiber Laser.
11:20-11:40	Haroon Asghar (NCP Islamabad)	On the stabilization of Pulsed Laser Sources: Semiconductor and Fiber Lasers.
11:40 – 12:00	Muhammad Sohail (NCP/China)	Recent advances in Q-switching of fiber laser and its applications.
12:00 – 12:20	Rizwan Ajmal (NCP/PU LHR)	The role of saturable absorbers thickness in the Q-switching of Erbium doped fiber laser.
12:20 – 12:40	Kiran Ilyas (QAU, Islamabad)	Dispersion engineered mid-IR super continuum generation using multi-core silicon-rich nitride photonic integrated waveguide.

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12:40 – 13:00	Muhammad Waseem (PIEAS, Islamabad)	Collisional stability of spin-polarized ultra-cold fermions with s -wave interactions.
13:00 – 14:00	LUNCH BREAK	
Sep. 12, 2022		
Technical Session II		
14:00-14:20	Izhar Ahmad (NILOP)	High power short pulsed laser systems and applications.
14:20-14:40	Qurat-ul-Ain (UMT LHR)	Microscopic Dynamics of diverse injection mechanisms of Laser wake field Acceleration.
14:40-15:00	Sabih-ud-din Khan, (NILOP)	Intense atto-second pulse generation using femtosecond lasers.
15:00-15:20	Muhammad Noaman- ul-Haq (NILOP)	Ion acceleration using ultra intense lasers.
15:20-15:40	Fayyaz Javed (Beijing Institute of Tech.)	High power laser diode end-pumped Innoslab amplifiers
15:40-16:00	Tea/Discussion	
DAY 2 Tuesday (Sep. 13, 2022)		
Sep. 13, 2022		
Technical Session - III		
09:00 – 09:30	Shazia Bashir (GCU LHR)	Laser-induced plasma as a tool for material processing.
09:30 – 09:50	Yasir Jamil (GCU Faisalabad)	Machine Learning assisted Laser Induced Breakdown Spectroscopy.
09:50– 10:10	Nasar Ahmad (AJK Univ.)	Spectroscopic analysis using LIBS coupled with Machine Learning Techniques.
10:10– 10:30	Shahab Ahmed Abbasi (AJK Univ.)	Magnetic field assisted enhancement of optical and ion emissions from laser produced plasma.

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10:30 – 10:50	Tea BREAK	
Sep. 13, 2022		
Technical Session - IV		
10:50 – 11:10	Hamza Qayyum (COMSATS)	Laser ablation based synthesis of metallic nano-particles and their applications.
11:10 – 11:30	Mujtaba Hussain (COMSATS)	Experimental and computational study of carrier spin dynamics in CsPbBr ₃ for spintronic applications.
11:30 – 11:50	Faisal Saeed (COMSATS)	Spin pumping of resident electrons in CdTe quantum wells under resonant excitation of trions with a periodic sequence of optical pulses.
11:50 – 12:10	Muzamil Shah (LUMS LHR)	Photonic spin Hall effect in 2D materials.
12:10 – 12:30	Amina Zafar (PINSTECH, Islamabad)	The Thinnest Light Disk: Rewritable Data Storage and Encryption on WS ₂ Monolayers.
12:30-12:50	Muhammad Sohail (Univ. of Sawat)	Graphene based BaTiO ₃ nanocomposite films, durable and efficient energy harvesting materials.
12:50-14:00	LUNCH BREAK	
Sep. 13, 2022		
Technical Session - V		
14:00-14:20	Sami-ul-Haq (NILOP)	Nano particle-enhanced laser-induced breakdown spectroscopy (NELIBS): Improvement in signal sensitivity and repeatability.
14:20-14:40	Seemab Iqbal (GCWU Faisalabad)	Polymer blend doped nanostructures towards MRI, PTT and PDT Applications.
14:40-15:00	Rammez-ul-Islam (NILOP)	Past of the quantum particle: Atom optics implementation.

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15:00-15:20	Muhammad Imran (NILOP)	Quantum Delayed Choice Experiment: Implementation with cavity QED.
15:20-15:40	Dilawaiz (PIEAS)	Quantum entanglement in coupled cavity magnomechanics.
15:40-16:00	Concluding Remarks by Dr. Ishaq Ahmad (DG CoE Phys.) & Tea/Discussion	

Venue:

Symposium Coordinator:

Organized By:

Room No. 109, Academic Block, NCP Islamabad

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