

5th Laser Matter Interaction (LMI-2021)

Atomic and Laser Physics Department

National Centre for Physics (NCP), Islamabad

DAY 1 Tuesday (Sep. 14, 2021)		
Sep. 14, 2021		Technical Session I
09:45 – 09:50	<i>Recitation</i>	
09:50 – 09:55	<i>Opening Remarks by Dr. M. Aslam Baig (ALPD-NCP)</i>	
09:55 – 10:00	<i>Welcome Address by Dr. Hafeez R. Hoorani (DG NCP)</i>	
10:00 – 10:30	Dr. Riaz Ahmad (GCU LHR)	
10:30 – 11:00	Dr. M. Hassan Sayyad (GIK)	Laser-Matter Interaction: Physics and Photonics Engineering Applications
11:00 – 11:30	Dr. Rizwan Ahmed (ALPD-NCP)	Research and development activities at Atomic and Laser Physics Department (ALPD), NCP
11:30 – 12:00	Dr. Hamza Qayyum (COMSATS)	Laser Plasma-based Ion and Photon Sources
12:00-12:20	Zakia Anjum (COMSATS)	Temporal evolution of plasma parameters in a pulse-modulated capacitively coupled Ar/O ₂ mixture discharge
12:20 – 14:00	LUNCH BREAK	
Sep. 14, 2021		Technical Session II
14:00-14:30	Dr. Shahid Qamar (PIEAS)	Precision Measurement using Cavity Optomechanics
14:30-15:00	Dr. Atif Shahbaz (GCU LHR)	Nuclear effects in laser-atom interaction
15:00-15:15	Muhib Ullah (Zhejiang Univ.)	Applications of Cavity optomechanics: Optical non-reciprocity and flexible manipulation of Goos-Hänchen shift

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15:15-15:30	Dr. ATIF, Hussain (UOG Gujrat)	Laser-induced breakdown spectroscopy of Aluminum plasma induced by a 1064 nm nanosecond laser
DAY 2 Wednesday (Sep. 15, 2021)		
Sep. 15, 2021		Technical Session - III
09:30 – 10:00	Dr. M. Saleem (NILOP)	Applications of spectroscopy for the characterization of agri & Biomedical media
10:00– 10:30	Dr. Ata-ul-Haq (LUMS LHR)	Valley Physics in Two Dimensional Semiconductors
10:30 – 11:00	Dr. Muzamil Shah (LUMS LHR)	Magneto-optic effect in 2D quantum materials
11:00 – 11:30	Dr. Haroon Asghar (ALPD-NCP)	Control of timing stability and feedback induced frequency fluctuations in semiconductor mode-locked lasers
11:30 – 11:45	Amir Fayyaz (ALPD-NCP)	The spectroscopic study of rare earth elements (REE's)
11:45 – 12:00	S.M. Z. Iqbal (Univ. of Karachi)	Self-Absorption Correction: A review
12:00 – 12:15	Mr. Muhammad Qasim (Univ of Sargodha)	Self-absorption effect in calibration-free laser induced breakdown spectroscopy: Analysis of mineral profile in Maerua oblongifolia plant
12:15-12:25	Asma Kalsoom (Kohat Univ)	Ab initio investigation of structural, elastic and Optoelectronic properties of indium-based halide perovskite InXCl_3 (x=Ge,Sn,Pb)
12:25 - 12:30	Concluding Remarks / End of Program	

Venue:

Virtual (All lectures will be through ZOOM)

Symposium Coordinator:

Dr. Rizwan Ahmed [rizwan.ahmed@ncp.edu.pk]

Organized By:

Atomic and Laser Physics Department (ALPD), NCP Islamabad