



IWPSD 2021
Indian Institute of Technology Delhi, New Delhi
14 - 17 December, 2021



Symposium: 2D Materials and Devices (HALL 2)

DAY 1 (D1) (14th December 2021/Tuesday)

9:00-11:15	Inaugural Session and Keynote Talk - Hall 1 (Common for all symposia)	
Session-1 (Morning)		
Time (IST)	Speaker	Title
11:15 – 12:00	Saptarshi Das (Penn. State University, USA)	2D-SKN-1: 2D Materials for Sensing, Compute, Storage, and Security
12:00 – 12:30	Anindya Das (IISc Bangalore)	2D-I-1: Interaction-driven giant thermopower of magic-angle twisted bilayer graphene
12:30 – 13:00	Chandra Shekhar (MPI, Dresden)	2D-I-2: Anomalous Hall and Nernst effects in magnetic nodal-line compounds
LUNCH BREAK (13:00 – 14:00)		
Session-2 (Afternoon)		
Time (IST)	Speaker	Title
14:00 – 14:45	Vladimir Falko (University of Manchester, UK)	2D-SKN-2: Ferroelectric domains and networks of piezoelectric domains in twistrionic bilayers of transition metal dichalcogenides
14:45 – 15:15	Saurabh Lodha (IIT Bombay)	2D-I-3: Enhanced photodetection and multi-bit encoding with WSe ₂ phototransistors using novel electrostatic gating techniques
15:15 – 15:45	Deep Jariwala (Penn. State University, USA)	2D-I-4: Two-Dimensional Materials for Low-Power Logic and Memory Devices
15:45 – 16:00	Manjari Garg (IISc Bangalore)	2D-O-1: Exploring Thermoelectric Transport in Twisted-Bilayer Graphene with Higher Twist Angle
16:00 – 16:15	Tea Break	
16:15 – 17:15	Industry Session-Hall 1 (Common for all symposia)	
17:15 – 18:45	Plenary Session-Hall 1 (Common for all symposia)	
END OF DAY 1		

DAY 2 (D2) (15th December 2021/Wednesday)

9:30-11:15	Plenary Session-Hall 1 (Common for all symposia)	
Session-1 (Morning)		
Time (IST)	Speaker	Title
11:15 – 11:45	Jens Wiebe (University of Hamburg)	2D-SKN-3: Length-dependent energy oscillations of precursors of Majoranas detected on both ends of Shiba chains
11:45 – 12:15	Mandar Deshmukh (TIFR, Mumbai)	2D-I-5: Twisted 2D materials and flatbands -- novel route to bandstructure engineering
12:15 – 12:45	S. Patnaik (JNU, Delhi)	2D-I-6: Topological superconductivity and its consequence for quantum computers (d/k)
LUNCH BREAK (13:00 – 14:00)		
Session-2 (Afternoon)		
Time (IST)	Speaker	Title
14:00 – 14:30	Samit Kumar Ray (IIT Kharagpur)	2D-I-7: Plasmon Enhanced Optical Response of Metal-2D Hybrids for Nanophotonic Devices
14:30 – 15:00	Mukesh Kumar (IIT Ropar)	2D-I-8: 2D materials and heterostructures for hazardous gas sensors and broadband photodetectors
15:00 – 15:30	Ashish Arora (IISER Pune)	2D-I-9: Excited and dark states of charged excitons in 2D semiconductors
15:30 – 15:45	Aditya Singh (IIT Delhi)	2D-O-2: Cavity-induced enhanced Raman scattering from 2D hybrid perovskites
16:00 – 16:15	Tea Break	
16:15 – 18:00	POSTER SESSION	
18:00 – 19:00	Industry Session-Hall 1 (Common for all symposia)	
END OF DAY 2		

DAY 3 (D3) (16th December 2021/Thursday)

9:30-11:15		
Plenary Session - Hall 1 (Common for all symposia)		
Session-1 (Morning)		
Time (IST)	Speaker	Title
11:15 – 12:00	Igor Aharonovich (UTS, Australia)	2D-SKN-4: Hexagonal Boron Nitride – emerging platform for Quantum Photonics
12:00 – 12:30	Anjan K. Gupta (IIT Kanpur)	2D-I-10: Evolution of interface traps with back gate voltage in Graphene on SiO ₂
12:30 – 13:00	Sajal Dhara (IIT Kharagpur)	2D-I-11: Optical anisotropy and strong light-matter interactions in ReS ₂
LUNCH BREAK (13:00 – 14:00)		
Session-2 (Afternoon)		
Time (IST)	Speaker	Title
14:00 – 14:30	Pradeep Kumar (IIT Mandi)	2D-I-12: Anisotropic Electron-Photon-Phonon Coupling in MoS ₂
14:30 – 15:00	Prasanta K Muduli (IIT Madras)	2D-I-13: Nanoscale nonlocal devices to probe quantum materials
15:00 – 15:30	Mahesh Kumar (IIT Jodhpur)	2D-I-14: Growth and gas sensing properties of CVD grown 2D Materials
15:30 – 15:45	Apoorva Chaturvedi (NTU, Singapore)	2D-O-3: Novel solid state synthesis route of layered materials and its applications
15:45 – 16:00	S. Ragul (IIT Madras)	2D-O-4: A first principle calculation based study on the realization of α -graphyne based noble gas flow detector
16:00 – 16:15	Tea Break	
16:15 – 18:00	POSTER SESSION	
END OF DAY 3		

DAY-4 (D4) (17th December 2021/Friday)

9:30-11:15	Plenary Session-Hall 1 (Common for all symposia)	
Session-1 (Morning)		
Time (IST)	Speaker	Title
11:15 – 11:45	Surajit Saha (IISER Bhopal)	2D-I-15: 2D Materials and their Potential Device Applications: An Important Role of Phonons
11:45 – 12:15	Tarun Kanti Bhattacharyya (IIT Kharagpur)	2D-I-16:
12:15 – 12:30	Suman Kr. Chakraborty (IIT Kharagpur)	2D-O-5: Edge-epitaxial growth of 2D lateral heterostructures
12.30 – 12:45	Vishwas Jindal (TIFR)	2D-O-6: Excitons in 2H-MoS ₂ under electric fields: an electro-reflectance spectroscopy study
CONCLUDING SESSION (13:00 – 13:30)		