



7th PSSI Plasma Scholars Colloquium 2019

Organized by Department of Physical Sciences,
Institute of Advanced Research, Gandhinagar



Schedule of PSSI PSC 2019

Day-1: 08.08.2019

Time	Event		Location
8:30-9:30 AM	Registration		Reception
9:45 AM	Taking of seats by all participants and students		Seminar Hall
10:00 AM	Taking of seats by Dignitaries and Keynote Speakers		
10:05 AM	Welcome by Convener		
10:10 AM	Inaugural ceremony		
10:20 AM	Speech by Chief Guest, Dr. Shashank Chaturvedi, Director, IPR (tentative)		
10:40 AM	Vote of Thanks of Inauguration Session		
10:45 AM	High Tea		
	Session-1 Basic Plasma (Theory and Experiment)		Seminar Hall
	Session Chair: Prof. K S Ganesh Prasad		
	Speaker	Paper Title (Code)	
11.15 AM	Plenary Talk-1 Prof. R. Ganesh	Exploring fundamental aspects of basic plasmas using simulations	
12:00 NOON	A.D. Patel	Plasma State in a Multi-Pole Line Cusp Magnetic field	
12:30 PM	Prabhakar Srivastav	Investigations on ETG Turbulence Induced Plasma Transport in Large Laboratory Plasma	
01:00 PM	Nidhi Rathee	Relativistic Upper-Hybrid Waves In A Cold Magnetized Plasma	
1.30 PM	Lunch Break (1:00 hr)		
	Session-2 Basic Plasma (Theory and Experiment), Computer Modeling		Seminar Hall
	Session Chair: Dr. Gurudutt Gaur		
	Speaker	Paper Title (Code)	
2:30 PM	Soumen De Karmakar	Role of interaction on the properties of active brownian particles	
3:00 PM	A.K. Pandey	Positive Ion Speed at Plasma Sheath Boundary in Presence of a Negative Ion Emitting Electrode	
3:30 PM- 4:40 PM	Session-3 Poster Presentation with Tea		Conference Room
	Session Chair: Dr. Alamgir Mondal		
	Presenter	Paper Title (Code)	
	Kishan Kumar	The Effects of Superthermal Electrons and negative ions on Large amplitude ion-acoustic double layers	
	P Das	Study of Fireball Generated on the Anode Surface by Plasma Spectroscopy	
	Perumal M	Effect of Plasma surface modification on ragi flour using by the impact of energetic N ₂ extracted from nitrogen glow discharge plasma	
	Mithun Karmakar	Excitation of plasma wakefields by proton beam	
	Ashish Adak	Wave-breaking amplitude of electrostatic waves in pair-ion plasmas	
	K. Deka	Effect of collisions on the plasma sheath in the presence of a gradient magnetic field	



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	R. Paul	Effect of Negative Ions on the Magnetized Plasma Sheath	
	G. Sharma	Study of weakly collisional two electron temperature plasma sheath	
	Sneha Latha Kommuguri	Complex temporal dynamics and long range chaotic behaviour of multiple double layers in glow discharge plasma	
4:30 PM	Popular Talk-1 Prof. Abhijit Sen	Clocks, Fireflies and the Landau Damping of Plasma Waves	
6:00 PM	Ice-breaking and Interaction Session		
7:30 PM onwards	Dinner		

Day2: 09/08/2019

	Session -4 Computer Modelling and Exotic Plasma		Seminar Hall
	Session chair: Dr. Payal Pandit		
9:00 AM	Plenary Talk-2 Dr. Pintu Bandyopadhyay	Dusty Plasma: A Multidisciplinary Field of Research	
10:00 AM	Miral Shah	Kinetic Modeling and Simulation of Plasma Transport across Magnetic Filter	
10:20 AM	Jayaprakash K	Modeling floating potential Oscillation Observed by forced Anharmonic Oscillator in typical MADL condition in Glow Discharges	
10:40 AM	G. Arora	Stationary and dynamic structures in flowing complex plasmas	
11:00 AM	High Tea		
	Session -5 Nuclear Fusion and Technology		Seminar Hall
	Session chair: Ms. Divya Dileep		
11:30 AM	Plenary Talk -3 Dr. Joydeep Ghosh	What is a 'Tokamak'?	
12:30 PM	Chirag Sedani	Measurement of effective thermal conductivity of ceramic breeder pebble bed by steady state method	
12:50 PM	Bibhu Prasad Sahoo	3D simulation of plasma transport in Aditya tokamak Scrape off layer (SOL)	
1:10 PM	Tanmay Macwan	Measurement Of Runaway Electron Beam Position Using Cosine Coil In ADITYA-U Tokamak	
1:30 PM	Lunch Break		
	Session -6 Plasma Diagnostics		Seminar Hall
	Session chair: Dr. Prabhakar Shrivastava		
2:30 PM	Abha Kanik	Temperature response of laser heated emissive probe tips under free and vacuum conditions.	
2:50 PM	Nandini Yadava	Spatial profile measurement of H α and C $^+$ ion Temperature in Aditya-U Tokamak	
3:10 PM	J.K. Joshi	Hybrid Triple Langmuir Probe for magnetized plasma diagnostics	
3:30 PM	Shikha Binwal	Mathematical model to quantify magnetized capacitive coupled RF plasmas	
4:00 PM	Tea break		



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4:30 PM	Popular Talk-2 Prof. Kandaswamy Subramanian	Magnetizing the Universe	
5:30 PM- 6:30 PM	Session -7 Poster Presentation		Conference room
	Session chair : Dr. Ashish Adak		
	Saravanan A	Differential Rotation of Dust Particles Around the Void In a DC glow discharge Dusty Plasma	
	M. G. Hariprasad	Experimental Investigation of Thermodynamics and Self-organization of Classical Two-dimensional Clusters	
	S. Singh	Effect of Laser Heating on a Coulomb Crystal in DC Glow Discharge Plasma	
	K. Kumar	Generation of Shear Flow in a Flowing Dusty Plasma	
	Kaushlender Singh	Effect of Gas puff and SMBI on MHD activity in ADITYA and ADITYA-U Tokamak.	
	Sunidhi Singla	Low Frequency Shock Structures In Quantum Dusty Plasma	
	Rupinder Kaur	Dust Kinetic Alfvén Periodic Waves In Superthermal Non-Maxwellian Plasmas	
	Thangjam Rishikanta Singh	Study of fluctuations in typical anodic double layers dc glow discharge plasma conditions and its comparison with fluctuation observed by fast auroral snapshot satellite	
7:30 PM onwards	President's Dinner		

Day 3: 10/08/2019

	Session-8 Laser Plasma, Industrial Plasma, Plasma Processing and Pulsed Power Plasma		Seminar Hall
	Session chair: Dr. Hasmukh Gajera		
9:00 AM	Plenary Talk -4 Dr. Arun Kumar Sarma	Plasma Technology and its application in Industry: Diamond like Carbon coating and its importance	
10:00 AM	Ganeswar Dalei	Fabrication of Surface Nanotextured Carboxymethyl Guar Gum Hydrogels: Influence of Ammonia Plasma on Drug Delivery and Biocompatibility	
10:20 AM	Alamgir Mondal	Spectroscopic Investigation of Stagnation Region in Laterally Colliding Plasmas	
10:40 AM	Sagar Sekhar Mahalik	Collisionless absorption of short laser pulses in atomic nano-clusters via anharmonic resonance: A molecular dynamics simulation study	
11:00 AM	High Tea		
11:30 AM	Shivam Kumar Mishra	Effect of radiation-reaction on auto-resonant energy gain in the presence of plane electromagnetic wave.	
11:50AM- 1:00 PM	Session -9 Poster Presentation		Conference room
	Session chair: Dr. Amit Patel		
	Krishna Kumar Soni	Expanding Thin Plasma Foil Driven Ion Acceleration	
	Shalu Jain	Analytical And Numerical Investigation Of Energy Spectra Of The Accelerated Ions From A Multispecies Target In Radiation Pressure Dominant Regime	
	Shilpa S	Influence of collision frequency on dispersion characteristics of	



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		surface waves in laser produced carbon plasmas	
	Divya D Pai	Imaging temporal evolution of laser produced plasma	
	Vikas Rathore	Investigation of disinfectant properties of Plasma Activated Water (PAW)	
	Archana Sharma	Estimation of plasma parameters namely density, temprature and potential inside and outside an inverted fireball using langmuir probe	
	B K Sethy	On The PFN Discharge Current Profile Across the Washer Plasma Gun	
1:00 PM	Expert from SLTL	Innovative radiant energy based applications developed indigenously at Sahajanand Laser Technology Limited	
2:00 PM		Lunch Break	
3:00 PM		Concluding ceremony	