Udaipur Solar Physics Meeting [USPM-2026]
(28-30 October 2026)
Udaipur Solar Observatory (USO)
Physical Research Laboratory (PRL)

Solar Data Analysis Workshop
(for PhD Students and Early Career Scientists)

28 October 2026, Wednesday, 08:30-12:30 hrs
Venue: USO Seminar Hall

Chair: Girjesh Gupta
Co-Chair: Anshu Kumari (Singh)
Coordinator: Bireddy Ramya

PRL ka Amrut Vyakhyaan (PKAV)

28 October 2026, Wednesday, 14:00-15:00 hrs
Venue: USO Seminar Hall

Speaker
Prof. Jagdev Singh
Senior Professor (Retd.), Indian Institute of Astrophysics (IIA), Bangalore
Title of the Vyakhyaan: Coronal spectroscopy – Past, Present, and Future

USO Island Observatory Visit

28 October 2026, Wednesday, 15:15-18:00 hrs

High Tea, 16:30-17:30 hrs

Vikram Discussion
on
"Solar Transients and Space Weather"

29-30 October 2026
Venue: USO Seminar Hall

Day 1: 29/10/2026 (Thursday)

08:45-09:00	Registration	
09:00-09:30	Inaugural Ceremony	
Session 1: Solar X-ray Astronomy in India: Current Capabilities and Future Prospects **Chair:** S. P. Rajaguru **Co-Chair:** Aveek Sarkar		
09:45-10:05	Kasiviswanathan Sankarasubramanian, URSC	X-ray observations of the Sun - URSC's Current capabilities and Future plans
10:05-10:25	Bhuwan Joshi, USO-PRL	X-ray Emission from Solar Flares: Heating, Particle Acceleration, and Eruptivity
10:25-10:45	Santosh V. Vadawale, PRL	Solar X-ray Observations: Beyond 'Sun-as-a-star' X-ray Spectroscopy
10:45-11:30	Group Photo, High Tea, and Poster Viewing	
11:30-11:50	Shanmugam M., PRL	Solar X-ray Monitor Onboard Chandrayyan-2: Design and 7 years of Inflight Performance
11:50-12:10	Arun Kumar Awasthi, DU	Probing the Physics of Radiation and Particles during Hard-X-ray-rich Weak-flares
12:10-12:30	N. P. S. Mithun, PRL	Multi-scale Solar Flares: An X-ray Perspective with Chandrayaan-2 XSM
12:30-12:45	Discussion	
12:45-14:00	Lunch and Poster Viewing	
Session 2: Solar Atmospheric Phenomena: Processes, Dynamics and Transients **Session Chair:** Dipankar Banerjee **Co-Chair:** Arun Kumar Awasthi		
14:00-14:20	S. P. Rajaguru, IIA	Source Region Dynamics and Origin of Solar Transients

14:20-14:40	Abhishekh K. Srivastava, IIT(BHU)	Plasma Processes in a Heterogeneous Corona: A Basis for Next-Generation Solar Missions
14:40-15:00	Piyali Chatterjee, IIA	Spinning Jets and Giant Solar Cyclones in the Solar Atmosphere
15:00-15:20	Ramesh Chandra, Kumaun Univ.	Global Solar Coronal Waves: Observations and Interpretations
15:20-15:30	Discussion	
15:30-16:00	Tea and Poster Viewing	
Session 3: Solar Observations and Instrumentation **Session Chair:** K. Sankarasubramanian **Co-Chair:** Mudit K. Srivastava		
16:00-16:20	Shibu K. Mathew, USO-PRL	Multi-Application Solar Telescope (MAST): Scientific Potential and Observing Programs
16:20-16:50	Reetika Joshi, RoCS	High-Resolution Ground-Based Observations: A Key to Understanding Solar Dynamics
16:50-17:10	Nagaraju K., IIA	The National Large Solar Telescope: Project Overview and Development Plans
17:10-17:30	Brajesh Kumar, USO-PRL	Three Decades of the GONG and the Upcoming ngGONG
17:30-17:50	Kushagra Upadhyay, USO-PRL	Ongoing Solar Radio Observational Programs at USO: Udaipur-CALLISTO and RASMI
17:50-18:00	Discussion	
18:00-18:30	Poster Viewing	
18:30-19:00	Transfer by bus to Shilpi Amantra Resort	
19:00-22:00	Director’s Dinner at Shilpi Amantra Resort	
Day 2: 30/10/2026 (Friday)		
09:00-09:30	Poster Viewing	
Session 4: New Insights from Aditya-L1 **Session Chair:** Anil Bhardwaj **Co-Chair:** Bhargav Vaidya		
09:30-09:50	Jagdev Singh, IIA	Results of Spectroscopic Observations with Visible Emission Line Coronagraph (VELC) on board ADITYA-L1
09:50-10:10	Durgesh Tripathi, IUCAA	New Insights from SUIT

10:10-10:30	Dibyendu Chakrabarty, PRL	New Insights into the Solar Wind, Energetic Particles, and Space Weather from ASPEX Measurements on board Aditya-L1
10:30-10:50	Vipin Kumar Yadav, SPL-VSSC	Observations of Extreme Solar Transient Events in the Interplanetary Medium by MAG Payload on board Aditya-L1 Solar Mission
10:50-11:00	Discussion	
11:00-11:30	Tea and Poster Viewing	
11:30-11:50	Abhilash Sarwade, URSC	Soft X-ray Spectroscopy using SoLEXS on board Aditya-L1
11:50-12:10	Srikar Paavan Tadepalli, URSC	Solar Observations with HEL1OS: Scientific Capabilities and Ongoing Programs
12:10-12:30	Ram Ajor Maurya, NIT Calicut	MHD Oscillations in Major Solar Flares: Insights from Aditya-L1 Observations
12:30-12:50	P. Vemareddy, IIA	Coronal Green-Line Emission During a Solar Prominence Eruption: Spectroscopic Evidence of Its Correspondence with the EUV Late Phase
12:50-13:00	Discussion	
13:00-14:00	Lunch and Poster Viewing	
Session 5: Space Weather **Session Chair:** D. Pallamraju **Co-Chair:** Piyali Chatterjee		
14:00-14:20	Wageesh Mishra, IIA	Thermodynamic Evolution, Internal Dynamics, and Geoeffectiveness of Coronal Mass Ejections
14:20-14:40	Anil Raghav, Univ. of Mumbai	Distinct Magnetospheric Drivers of Geomagnetically Induced Currents During the November 2025 Geomagnetic Storm
14:40-15:00	Geeta Vichare, IIG	Pressure-Driven Magnetospheric Disturbances: Electric Fields, Field-Aligned Currents, and Ionospheric Responses
15:00-15:20	Ankush Bhaskar, SPL-VSSC	Multipoint in situ Observations near L1 and Their Relevance to Improved Space Weather Prediction
15:20-15:30	Discussion	
15:30-16:00	Tea	
16:00-16:20	Bhargav Vaidya, IIT Indore	Space Weather Drivers in the Inner Heliosphere and their Impacts : A Numerical Perspective

16:20-16:40	Anshu Kumari (Singh), USO-PRL	Solar and Space Weather Radiophysics
16:40-17:00	Nirvikar Dashora, NARL	Energy Pathways from L1 Point to Magnetosphere Ionosphere System-Indian Perspective
17:00-17:20	Navin Kumar Dwivedi, IIIT Vadodara	Plasma Turbulence Variability with Solar Cycle
17:20-17:30	Discussion	
17:30-18:00	Concluding Session	
18:00-18:30	Tea	

List of Posters

Poster ID	Corresponding Author	Title
P01	Akash Bairagi, IIT (BHU)	Evolution of Alfvén Wave Packet and its Phase Mixing in the Corona
P02	Apoorv Dashora, Kumaun University	Solar Extreme-Ultraviolet Waves and their Association with Type II Metric Radio Bursts
P03	Ananya Rawat, USO-PRL	Exploring the Magnetic Field and Plasma-β Along Isolated Fan Loops Rooted in Sunspot Umbrae Using 3-min Slow Waves
P04	Pallab Boro, JNU	Anisotropic Cosmic-Ray Diffusion, Firehose and Gravitational Instabilities in Polytropic Astrophysical Plasmas
P05	Prithvi Raj Singh, Univ. of Allahabad	Periodic Variations of Solar Chromospheric Indices (Mg II and Ca II H) during Solar Cycle 24 and Neural Network Forward Modeling for Solar Cycle 25
P06	Safna Banu K, USO-PRL	Multi-Sigmoidal Structure Impact on an Active Region Flare
P07	Dinesh Mishra, USO-PRL	Recurrent Eruptions in the Solar Active Region NOAA 14274: Insights from Magnetic Energy and Helicity Evolution
P08	Simrat Kaur, USO-PRL	Exploring Magnetic Reconnection in a Sub-A-class

		Microflare Using Data-constrained Numerical Simulation and Multi-instrument Observations
P09	Hasil Dixit, USO-PRL	Characterizing small-scale chromospheric transients using data from MAST Ca II 8542 Å and SDO
P10	Chandan Joshi, JECRC University	Decoupling Limb-Projection Effects in Solar Eruptions: A Radial-Tangential Optical Flow Approach
P11	Vishwa Vijay Singh, USO-PRL	On the Origin of the EUV Wave and Type II Radio Burst Associated with an Eruptive Flare: Udaipur-CALLISTO, XSM/Chandrayaan-2, and AIA/SDO Observations
P12	Prakhar Singh, ARIES	Soft X-ray Spectral Diagnostics of M-Class Solar Flares Using SoLEXS/Aditya-L1
P13	Soumya Roy, PRL	X-class Flare on 27 May 2024 Observed by the Solar Ultraviolet Imaging Telescope Onboard Aditya-L1
P14	Sachin Rajkapoor Kanaujiya, NIT Calicut	Statistical Insights into Hard X-Ray Quasi-Periodic Pulsations from Aditya-L1/HEL1OS
P15	Pawan Kumar, Patna University	Exploring an X1.8 Flare and Associated Quasi-periodic Pulsations Using SDO and Aditya-L1 Observations, Alongside NFFF Extrapolation
P16	Ravi Chaurasiya, USO-PRL	Multi-height Dynamics and Thermal Evolution of a C-Class Solar Flare
P17	Divya Paliwal, USO-PRL	Energy Fragmentation in a Solar Flaring Region: A Multi-Instrument Investigation
P18	Ajaz Mir, USO-PRL	Solar Radio Wave Generation by Beam-Plasma Interactions
P19	Megha, PRL	Species Dependent Quiet Time Spectral Indices of Suprathermal Ions at L1 for shorter intervals
P20	Astha Singh, M.L.K. (P.G.) College Balrampur	Investigating Cosmic-Ray Variability in Relation to Solar Wind Speed and Geomagnetic Parameters

P21	Sardar Singh Rao, Patna University	Ionospheric Response to Space Weather Events: Dependence on Source Region Characteristics and Solar Wind Drivers
P22	Brajesh Kumar, USO-PRL	New Generation Global Oscillation Network Group (ngGONG)
P23	Neeraj Tiwari, PRL	An Enhanced Optical Design for Wide-field Solar X-ray Imaging Telescopes
P24	Anshu Kumari, USO-PRL	Solar Radio Instrumentation at Udaipur Solar Observatory: Current Developments and Future Plans
P25	Anshu Nagill, Banasthali Vidhyapeeth	Radio Flux Monitor (RFM): An F10.7 cm Multi-Latitude Solar Radio Flux Monitoring Network
P26	Bireddy Ramya, USO-PRL	ARISO: Advanced Radio Instrumentation for Solar Observation
P27	Harsha Avinash Tanti, USO-PRL	MIRA: Multi-latitude Investigation of Solar Radio Activity
P28	Nitin Purohit, USO-PRL	Early Development of the Multi-Feed Antenna and RF Front-End for ARUN-SSW
P29	Bhuwan Joshi, USO-PRL	BRAHMA: Bharatiya Radio Array for Heliospheric Monitoring and Analysis