

**Day 1: April 11, 2023**

**First Meeting of  
Science from In-situ Measurements of Aditya-L1 (SIMA-01)**  
**Date: April 11-13, 2023** **Venue: SPL/VSSC**

Time	Title	Presenter
<b>09:00-9:30 Registration</b>		
<b>Inauguration</b>		
09:30 - 10:30	Invocation	
	Welcome Address Director, SPL	
	Lighting the lamp	
	Inaugural Address by Director, VSSC	
	Introduction of the program by representative from SPO	
	Felicitations: AD (P), AD (R &D), Director PRL, Director LEOS, DD AVN, DD SR	
Vote of Thanks, Convener SIMA-01		
<b>10:30-11:00</b>	<b>High Tea</b>	
<b>Plenary Session 1</b>		<b>Chair: Dr. K. V. Sriram</b>
11:00 – 11:30 (Plenary Talk)	Aditya-L1 Mission overview	Mr. Nashiket Parate, DPD ADITYA-L1, URSC
11:30 – 12:00 (Plenary Talk)	Science from Aditya-L1 as an Observatory	Dr. Sankarasubramanian K., Principal Scientist Aditya-L1, URSC
<b>Session 1: Overview of In-situ Payloads and Science Capabilities</b>		<b>Chair: Prof. Anil Bhardwaj</b>
12:00 – 12:30	Investigations on solar wind using Aditya Solar wind Particle Experiment (ASPEX)	Prof. D. Chakrabarty, PRL
	Aditya Solar wind Particle Experiment onboard Aditya L1 mission	Dr. Shanmugam, PRL
12:30 – 13:00	Overview and Capabilities of PAPA	Dr. R. Satheesh Thampi, SPL
13:00 – 13:30	Overview and Capabilities of MAG	Dr. Krishnam Prasad, LEOS and Dr. Vipin K. Yadav, SPL
<b>13:30- 14:30</b>	<b>Lunch Break</b>	
<b>Session 2: Complimentary science from remote sensing payloads</b>		<b>Chair: Mr. Nashiket Parate</b>
14:30-15:00	VELC	Prof. Jagdev Singh, IIA
15:00-15:30	SUIT	Prof. A. N. Ramprakash, IUCAA
15:30-16:00	HEL1OS	Mr. Abhilash Sarwade, URSC
16:00-16:30	SoLEXS	Mr. Abhilash Sarwade, URSC
<b>16:30- 17:00</b>	<b>Tea Break</b>	
<b>Session 3: Solar Transients: Flares, CMEs, and ICMEs</b>		<b>Chair: Prof. Dipankar Banerjee</b>
17:00 – 17:20	Unresolved Science of Solar Flares and Aditya-L1 Perspective	Dr. Bhuwan Joshi, PRL
17:20 – 17:40	Solar Flares: Chandrayaan-2/XSM experience and Aditya-L1 perspective	Dr. Santosh Vadawale, PRL
17:40-18:00	CME-CME interaction & its insitu signatures	Dr. Nandita Srivastava, PRL
18:00-18:20	CMES and their geoeffectiveness: Aditya-L1 perspective	Dr. Wageesh Mishra, IIA
<b>Session 4: Panel Discussion</b>		<b>Chair: Prof. Jagdev Singh</b>
18:20 – 19:20	Aditya-L1 data and Science collaboration at national and international level	Panelists from ISRO/DOS, other institutes and universities
<b>19:30</b>	<b>Dinner</b>	

## Day 2: April 12, 2023

Time	Title	Presenter
<b>Plenary Session 2</b>		<b>Chair: Dr. Nandita Srivastava</b>
09:30 – 10:00 (Plenary Talk)	Unresolved problems in the physics of Solar wind	Prof. Dipankar Banerjee, Director, ARIES
10:00 – 10:30 (Plenary Talk)	Physics of Solar Wind-CME Interactions with the Magnetosphere: Predicting Geomagnetic Storm Intensities	Prof. Dibyendu Nandi, IISER Kolkata
<b>10:30 – 11:00</b>	<b>Tea Break</b>	
<b>Session 5: Solar Wind Physics</b>		<b>Chair: Dr. R. Satheesh Thampi</b>
11:00 – 11:20	Plasma flows in the inner heliosphere: MHD Modelling vs In-situ Data	Dr. Bhargav Vaidya, IIT-Indore
11:20 – 11:40	Substructures of ICMEs and Cosmic ray flux modulation	Dr. Anil Raghav, University of Mumbai
11:40-12:00	Non-radial flow of solar wind – observations & interpretation with Aditya-L1	Dr. Susanta Kumar Bisoi, NIT Rourkela
12:00-12:20	Small scale flux ropes	Dr. Zubair Shaikh, IIG
12:20- 12:40	Solar wind prediction using deep learning	Dr. Vishal Upendran, IUCAA
12:40-12:50	Turbulence and Anomalous Resistivity inside Near-Earth Magnetic Clouds	Mr. Debesh Bhattacharjee
12:50-13:00	First analysis of in-situ observation of surface Alfvén waves in ICME flux rope.	Mr. Omkar Sadanand Dhamane, University of Mumbai
<b>13:00- 14:00</b>	<b>Lunch Break</b>	
<b>Session 6: Observing Magnetospheric and Ionospheric impact -I</b>		<b>Chair: Prof. Dibyendu Chakraborty</b>
14:00 – 14:20	Ground-based observations and upstream solar wind using Aditya-L1 data	Prof. Geeta Vichare, IIG
14:20 – 14:40	Space weather, INSWIM, and Aditya-L1	Dr. Tarun Kumar Pant, SPL
14:40 – 15:00	In-situ measurements for ionosphere and space weather	Prof. Umesh Khadane, IIST
15:00 – 15:20	Magnetospheric-Ionospheric current system: Relevance To Aditya-L1	Prof. B. Veenadhari, IIG
15:20 – 15:30	Magnetospheric Physics and Aditya-L1: Perspective	Dr. Ankush Bhaskar, SPL
<b>15:30- 16:00</b>	<b>Tea Break</b>	
<b>Session 7: Observing Magnetospheric and Ionospheric impact-II</b>		<b>Chair: Dr. Vipin Kumar Yadav</b>
16:00 – 16:20	Ionospheric studies and Aditya-L1 relevance	Dr. Manju G., SPL
16:20 – 16:40	Recent results on solar wind magnetosphere ionosphere coupling and response during extreme space weather events.	Dr. Nirvikar Dashora, NARL
16:40 – 16:50	Impact of solar transients on outer radiation belt electron flux	Dr. Sneha Arunkumar Gokani, Amity University
16:50 – 17:00	Aditya L1 usage towards studying the geo-effectiveness	Dr. R. Selvakumaran, Amity University
<b>Session 8: Lightning Talks</b>		<b>Chair: Prof. B. Veenadhari</b>
17:00 – 17:30	Poster Presentations	2min each
<b>17:30-18:30</b>	<b>Tea and Poster Session*</b>	

### Day 3: April 13, 2023

Time	Title	Presenter
<b>Plenary Session 3</b>		<b>Chair: Prof. Geeta Vichare</b>
9:30 – 10:00 (Plenary Talk)	"Unresolved problems in Ionosphere and space weather studies and future space missions "	Prof. Anil Bhardwaj, PRL
<b>Session 9: Space Weather Modeling, Monitoring, and Forecasting</b>		<b>Chair: Dr. Tarun Kumar Pant</b>
10:00 – 10:20	Modelling of Solar MHD waves and relevance to Aditya-L1	Dr. Nitin Yadav, IISER-Trivandrum
10:20 – 10:40	Anisotropy in Solar wind	Dr. Aweek Sarkar, PRL
10:40-11:00	Physics-based modeling of magnetosphere	Prof. Amar Kakad, IIG
<b>11:00-11:20</b>	<b>Tea break</b>	
11:20-11:40	Small satellites for space instruments- technology demonstration missions	Prof. Priyadarshanam, IIST
11:40-12:00	Probing space weather using GRAPES-3 and Aditya-L1	Dr. Pravata Mohanty, TIFR
12:00 -12:10	CME-Solar Wind Interaction and its in-situ signatures at L1 using SWASTi	Prateek Mayank, IIT Indore
12:10 -12:20	Modelling the Interplay between Solar-Stellar Winds and Planetary Magnetospheres: Implications for Atmospheric Mass Loss and Habitability	Sakshi Gupta, IISER Kolkata
12:20 -13:00	Poster Viewing	
<b>13:00 - 14:00</b>	<b>Lunch Break</b>	
<b>Session 10: Planetary Space Weather</b>		<b>Chair: Prof. Dibyendu Nandi</b>
14:00 – 14:20	Effect of Solar wind on the Moon – utilization of Aditya-L1 data	Dr. M. B. Dhanya, SPL
14:20 – 14:40	Planetary ionosphere and solar forcing: Aditya-L1 relevance	Dr. Narukull Venkateswara Rao, NARL
14:40 – 15:00	Observations and Modelling of Martian Ionosphere	Dr. Vrinda Mukundan, NCESS
15:00 – 15:20	Modelling of the Planetary ionosphere : Relevance of Aditya L1 observations	Dr. Ambili, SPL
15:20 -15:30	Planetary Space weather: Observational Perspective	Dr. Smitha V. Thampi, SPL
<b>Session 11: Panel Discussion</b>		<b>Chair: Prof. Anil Bhardwaj</b>
15:30 – 16:30	Beyond Aditya	Panelists from ISRO/DOS, other institutes and universities
<b>16:30 – 16:45</b>	<b>Concluding remarks Convener LOC</b>	
<b>16:45 – 17:30</b>	<b>Tea</b>	

#### \*Poster Presentations

M. Syed Ibrahim, IIA	A reason for Radio Quietness of the fast CMEs
Ashna V M, Providence Women's College	An Investigation on the Efficiency of Viscous Interaction during Intense Northward IMF Bz events of 23- 24 Solar Cycles
Geetika Slathia, Guru Nanak Dev University, Amritsar	Analytical study of inertial Alfvén wave higher order solitons in a multicomponent plasma
Hemapriya R, IIT Indore	Convolutional Neural Network (CNN)-based deep-learning model for solar-wind prediction
Kalpesh Ghag, Department of Physics, University of Mumbai	Distinct polytropic behavior of plasma during ICME-HSS interaction
Yoshita Baruah. CESSI, IISER Kolkata	Geomagnetic Storm Induced Orbital Decay of Satellites in Low Earth Orbits
Rajneet Kaur, Guru Nanak Dev University , Amritsar	Interaction of electron acoustic waves in electron-beam plasma with non-Maxwellian electrons
Kishor Kumbhar, Department of Physics, University of Mumbai	Observation of Kinetic Alfvén Waves in Magnetic Cloud
Sandeep Kumar, PRL	Using In-situ and Heliospheric Observations for Continuous Tracking of a Stealth CME Observed on 5 October 2012.
Richa Naja Jain, SPL	Dynamics in the Inner-Middle Corona - Results from Radio Sounding experiment conducted by MOM Spacecraft.
Komal Choraghe, Department of Physics, University of Mumbai	The Cause of CIR Induced Intense Geomagnetic Storms



