

VELC/Aditya-L1 National Science Workshop

8-10 June 2022

Wednesday, 8 June

Session-I

09:10	Welcome
09:20	Overview of Aditya-L1 mission – B. R. Prasad
09:50	Systematic emission line observations - lead to VELC – Jagdev Singh
10:20	Eruption of EUV hot-channel from solar limb and associated moving type-IV radio burst – P. Vemareddy
10:40	Investigations on the cause of failed eruption of a torus-triggered flux rope in quadrupolar magnetic configuration – Prabir Kumar Mitra

11:00-11:30 Coffee/Tea

Session-II

11:30	Solar magnetic flux ropes: build-up, early evolution and eruption – Bhuwan Joshi
12:00	Assessing the capability of Aditya-L1 for CMEs arrival time and space weather Forecast – Wageesh Mishra
12:20	Coronal mass ejections, source region characteristics and their shock signatures – A. Shanmugaraju
12:40	Initiation phase of CMEs through coronal dynamics with pre- and post-eruptions – Sudheer Mishra

13:00-14:30 Lunch

Session-III

14:30	Magnetohydrodynamic waves and associated seismology in the solar atmosphere – Vaibhav Pant
15:00	Effect of coronal rain on oscillation properties of coronal loops – Arpit Shrivastav
15:20	Waves and flows from the chromosphere to corona – science possibilities with joint observations by VELC and SUI on Aditya-L1 – S. P. Rajaguru
15:40	Investigating waves and flows in the inner corona using Aditya-L1 – Tanmoy Samanta

16:00-16:30 Coffee/Tea

Session- IV

16:30	Numerical simulation and forward modelling of a breakout CME – Nitin Vashishtha
16:45	First detailed polarimetric study of a group of type III solar radio bursts with the Murchison Widefield Array – Soham Dey
17:00	Solar ejecta and geophysical conditions during recent solar cycles – Aditi Kaushik

Thursday 9 June

Session-I

09:30	Coronal magnetometry with VELC – K. Nagaraju
10:00	Polarimetric studies in Fe XIII 10747 line – L. S. Anusha
10:20	Solar coronal magnetic fields and sensitivity requirements for spectropolarimetry channel of VELC onboard Aditya-L1 – Sasikumar Raja Kantepalli
10:40	Measurement of coronal magnetic field using Bayesian inference – Upasna Baweja

11:00-11:30 Coffee/Tea

Session-II

11:30	Science opportunities from combined high fidelity low-frequency spectro-polarimetric imaging and Aditya-L1/VELC observations – Divya Oberoi
12:00	Near-Sun characteristics and interplanetary propagation of CMEs associated with DH type II radio bursts – Binal Patel
12:20	Observation of Alfvén wave during ICME-HSS interaction – Omkar Dhamane
12:40	Modeling a coronal mass ejection as a magnetized structure with EUHFORIA – G. Sindhuja

13:00-14:30 Lunch

Session-III

14:30	Combining VELC and low-frequency radio observations – C. Kathiravan
15:00	Verification of geometrical structure of Sun's large-scale magnetic field structure of primordial origin from VELC magnetic field measurements – K. M. Hiremath
15:20	SWASTi for coronal mass ejections – Prateek Mayank
15:40	Numerical studies on coronal flux ropes with and without filaments – Piyali Chatterjee

16:00-16:30 Coffee/Tea

Session- IV

16:30	Asymmetry and hemispheric sunspot activity during maximum phase of solar cycle 24 – Prithvi Raj Singh
16:45	Analysis of geomagnetic storms in cycles 23 and 24 – S. V. Sathiya
17:00	New prospects of combined space weather research with high fidelity low-frequency spectro-polarimetric imaging and Aditya-L1 mission – Devojyoti Kansabanik

Friday, 10 June

Session-I

09:30	Science with SUI-VELC combined observations – Sreejith Padinhatteeri
10:00	VELC on board ADITYA-L1: optical design, realization, integration & calibration – Suresh Venkata Narra
10:20	Dynamic performance verification of Visible Emission Line Coronagraph on-board Aditya L1 (VELC-L1) prototype – Pawan Kumar
10:40	VELC detector systems: Thermovac test and calibration results – Varun Kumar

11:00-11:30 Coffee/Tea

Session-II

11:30	Data pipeline architecture for VELC – ADITYA-L1 – V. Muthupriyal
11:50	Activation of large-scale eruptions in solar atmosphere – Hema Kharayat

12:10	Comparison of two coronal mass ejection: propagation and their geo-effectiveness – M. Syed Ibrahim
12:30	The role of extreme geomagnetic storm in the forrush decrease profile – Kalpesh Ghag
12:50	Prospect of flare studies with VELC/Aditya-L1 observations – Jayant Joshi
13:10	Linking the physics of CME and Flare - prospects with VELC, SUIT, and X-ray payloads on-board Aditya-L1 – K. Sankarasubramanian

13:40-14:30 Lunch