

2023 CEDAR Workshop Agenda

Sunday, June 25, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Check-in, breakfast pastries		Pacific Foyer
8:00-8:30	Welcome	Dr. Larisa Goncharenko, Zishun Qiao, Andrew Pepper	Pacific A&B
8:30-8:45	Opportunities at DoD	Nick Deschenes, Diana Loucks	Pacific A&B
8:45-9:00	Citizen Science talk (Natural Radio Emissions)	Jonathan D. Rizzo	Pacific A&B
9:00-9:15	L1: ITM Coupling	Dr. Scott England	Pacific A&B
9:15-9:30	L2: High-Lat Ionosphere	Dr. Meghan Burleigh	Pacific A&B
9:30-9:45	L3: Interdisciplinary Research	Dr. George Clark	Pacific A&B
9:45-10:00	L4: Data Assimilation	Dr. Nicolas Pedatella	Pacific A&B
10:00-10:15	L5: Machine Learning	Dr. Doğacan Ozturk	Pacific A&B

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Time	Agenda	Presenter / Convener	Room
10:15-10:30	L6: Become a PI of Instrument/Mission	Dr. Ed Thiemann	Pacific A&B
10:30-10:50	Q & A		Pacific A&B
10:50-11:05	Coffee Break		
11:05-11:25	SO2: NOAA space wx	Dr. Tzu-Wei Fang	Pacific A&B
11:25-11:45	SO3: NSF	Dr. Alan Liu	Pacific A&B
11:45-13:15	Lunch on own		
13:15-13:50	Tutorial 1: NASA/CCMC	Dr. Jack Wang & Dr. Jia Yue	Pacific A&B
13:50-14:25	Tutorial 2: EISCAT 3D Primer	Dr. Andres Spicher	Pacific A&B

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14:25-15:00	Tutorial 3: SuperDARN	Dr. Shibaji Chakraborty	Pacific A&B
15:00-15:30	DEI - 2022 University of California academic workers' strike	Todd Emmenegger	Pacific A&B
	~5min walk to field		
15:30-17:30	Outdoor activity		Waterfront Park
17:00-19:00	Reception (all)		Terrace
19:15-20:15	DEI Tag-Up		Pacific A&B

Monday, June 26, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Registration/Check-in, breakfast pastries		Pacific Foyer

Monday, June 26, 2023

Time	Agenda	Presenter / Convener	Room
8:00-9:30	Plenary	Chair: Tzu-Wei Fang	Pacific A&B
8:00-8:40	WELCOME Student Day Report Student Institutions Introduced	Larisa Goncharenko (CSSC chair), NSF Zishun Qiao, Andrew Pepper	Pacific A&B
8:40-9:30	CEDAR Prize Lecture: The Role of Tides and Planetary Waves in Atmospheric Vertical Coupling	Ruth Lieberman	Pacific A&B
9:30-10:00	Break		
10:00-12:00	Plenary	Chair: Matt Zettergren	Pacific A&B
10:00-10:20	Science Highlight I: Traveling ionospheric disturbances (TIDs) and geospace-atmosphere multi-scale coupling processes	Shunrong Zhang	Pacific A&B
10:20-10:35	Early Career Science Highlight I: Exploring Stormtime Ionosphere-Thermosphere Dynamics With the Multiscale Atmosphere-Geospace Environment (MAGE) Model	Dong Ling	Pacific A&B

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10:35-10:55	EISCAT	Andres Spicher	Pacific A&B
10:55-11:45	Grand Challenge: The role of gravity waves in the mesosphere, thermosphere and ionosphere cross-scale coupling and irregularities	Titus Yuan	Pacific A&B
11:45-12:00	GC report: Interhemispheric asymmetries (IHA) and impact on the global I-T system	Astrid Maute	Pacific A&B
12:00-13:30	Lunch on own		
12:10-13:15	Student lunch (mentors and mentees)		Porthole
13:30-15:30	Grand Challenge A: The Role of Gravity Wave in the MTI Cross-Scale Coupling and Irregularities	Titus Yuan	Pacific A&B
	Auroral science and studies of coupled MIT dynamics using hybrid heterogeneous data, data assimilation, and data-driven models	Leslie Lamarche	Eastcoast
	Improving Space Weather Nowcast and Forecast through R2O2R	Tzu-Wei Fang	Westcoast
15:30-16:00	Break		

Monday, June 26, 2023

Time	Agenda	Presenter / Convener	Room
16:00-18:00	Grand Challenge A: Interhemispheric asymmetries (IHA) and impact on the global I-T system	Astrid Maute, Lynn Harvey	Pacific A&B
	Middle and subauroral latitude aeronomy	Shun-Rong Zhang	Harborside
	CEDAR science advances enabled by distributed ground-based instrument networks	Asti Bhatt	Eastcoast
	Advances in Ground-based and space-based auroral and equatorial electrojet currents	Rafael Mesquita	Westcoast
18:30-20:00	CSSC dinner		Embarcadero
18:30-21:30	Bailey/Harvey group meeting (side meeting)		Westcoast

Tuesday, June 27, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Breakfast pastries		Pacific Foyer

Tuesday, June 27, 2023

Time	Agenda	Presenter / Convener	Room
8:00-9:30	Plenary	Chair: Jia Yue	Pacific A&B
8:00-8:30	NSF Updates	Alan Liu, Tai-Yin Huang	Pacific A&B
8:30-9:00	NASA Updates	John McCormack, Peg Luce	Pacific A&B
9:00-9:10	Office of Naval Research Updates	Bruce Fritz	Pacific A&B
9:10-9:20	The NASA Living With A Star Program Analysis Group (LAPG): a call for input into the NASA Focused Science Topics	Bob McCoy, Olga Verkhoglyadova	Pacific A&B
9:20-9:35	Decadal Survey Updates	Robyn Millan	Pacific A&B
9:35-10:00	Break		
10:00-12:00	<u>Grand Challenge B: The Role of Gravity Wave in the MTI Cross-Scale Coupling and Irregularities</u>	Titus Yuan	Pacific A&B

Tuesday, June 27, 2023

Time	Agenda	Presenter / Convener	Room
	Meteoroids and Space Debris	Sigrid Close	Harborside
	Current understanding of solar eclipse's effects in geospace and plans for upcoming eclipses	Saurav Aryal	Eastcoast
	GDC Mission: Instruments & Science	Katelynn Greer	Westcoast
12:00-13:30	Lunch on own		
12:00-13:30	Judges lunch		Embarcadero
12:30-13:15	NSF town hall	Alan Liu, Tai-Yin Huang, Roman Makarevich	Pacific A&B
13:30-15:30	Grand Challenge B: Interhemispheric asymmetries (IHA) and impact on the global I-T system	Astrid Maute, Lynn Harvey	Pacific A&B
	Hunga Tonga-Hunga Ha'apai: Reflections on Efforts, Findings, and Challenges 1.5 Years Later After the Eruption	Pavel Inchin	Harborside
	Current and Future Instrumentation and Experiments at Mid-latitudes	Frank Lind	Eastcoast

Tuesday, June 27, 2023

Time	Agenda	Presenter / Convener	Room
	Diversity, Equity, and Inclusion at CEDAR Now and into the Future	Katrina Bossert	Westcoast
	CUSP 3 Solar Max (2026-2030) group meeting (side meeting)	Kolbjørn Blix	Porthole
15:30-16:00	Break		
15:30-18:30	Poster Session		Pacific C&D
17:00-18:00	NSF office hour	Tai-Yin Huang	Meeting planner's office
15:30-20:30	Poster judging	Poster judges	Emarcadero
20:00-21:00	Salsa Dance (all)	Student reps & Angeline Burrell	Porthole

Wednesday, June 28, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Breakfast pastries Women's breakfast	Lindsay Goodwin, Katelyn Greer	Pacific Foyer Porthole
8:00-9:30	Plenary	Chair: Lindsay Goodwin	Pacific A&B
8:00-8:15	Early Career Science Highlight II: Modeling high-latitude ionospheric upflow and outflow	Meghan Burliegh	Pacific A&B
8:15-8:35	Science Highlight II: Explicit simulation of gravity waves in a whole atmosphere model	Erich Becker	Pacific A&B
8:35-8:50	Early career science highlight (2022): GNSS Remote Sensing of the Ionosphere with Machine Learning and Modeling	Kshitija Deshpande	Pacific A&B
8:50-9:10	The International Meridian Circles Project: a major opportunity for science, space weather monitoring and enhanced international collaboration.	Michel Blanc	Pacific A&B
9:10-9:30	The EZIE mission	Sam Yee	Pacific A&B

Wednesday, June 28, 2023

Time	Agenda	Presenter / Convener	Room
9:30-10:00	Break		
10:00-12:00	Space Climate and Long-term Changes in the ITM System (Note: this workshop is a merge of 2 workshops)	Romina Nikoukar; Anastasia Newheart	Pacific A&B
	Evaluation of state-of-the-art models from meso- to planetary scales to assess the impact of data assimilation from the ground into geospace	Fabrizio Sassi	Harborside
	Wave-induced Vertical Coupling in Space-Atmosphere Interaction Region	Jack Wang	Eastcoast
	Interconnections between STEVE and other subauroral phenomena, and their impact on the magnetosphere-ionosphere-thermosphere system)	Bea Gallardo-Lacourt	Westcoast
12:00-13:30	Lunch on own		
12:00-13:30	Judges lunch		Embarcadero

Wednesday, June 28, 2023

Time	Agenda	Presenter / Convener	Room
12:30-13:15	NASA town hall on ENLoTIS working group	John McCormack	Pacific A&B
13:30-15:30	<u>Variability of Composition, Temperatures, and Neutral winds in the Mesosphere, Lower and middle Thermosphere Region Driven by forcing from above and below</u>	Quan Gan	Pacific A&B
	<u>Upper Atmospheric Response to Geological, Atmospheric, and Artificial Hazards</u>	Sovit Khadka	Harborside
	<u>Developments in equatorial aeronomy and space weather</u>	David Hysell	Eastcoast
	<u>Dynamic coupling of the thermosphere-ionosphere system during geomagnetically active periods</u>	Anastasia Newheart	Westcoast
15:30-16:00	Break		
15:30-18:30	<u>Poster Session</u>		Pacific C&D
15:30-20:30	Poster judging	Poster Judges	Emarcadero

Thursday, June 29, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Breakfast pastries		Pacific Foyer
8:00-9:30	Plenary	Chair: Mark Conde	Pacific A&B
8:00-9:00	Distinguished Lecture: Have Camera - Will Travel: Over 40 Years of Quantifying Dynamics and Impacts of Mesospheric Gravity Waves Around the World	Mike Taylor	Pacific A&B
9:00-9:15	Movement to improve Diversity, Equity, and Inclusion (DEI) in the American Physical Society - Division of Plasma Physics (and beyond): An Evidence Based Approach	David Newman	Pacific A&B
9:15-9:30	DEI Activities in the CEDAR Community	Julio Urbina	Pacific A&B
9:30-10:00	Break		
10:00-12:00	Recent advances in the understanding of Equatorial Ionization Anomaly (EIA) and ionospheric irregularities, part 1	Deepak Karan	Pacific A&B
	CEDAR and Climate Change	Susan Nossal	Harborside

Thursday, June 29, 2023

Time	Agenda	Presenter / Convener	Room
	Atmosphere-Space Coupling Studies with Advanced Observations and Numerical Modeling	Xinzhao Chu	Eastcoast
	Multi-scale Dynamics in the Ionosphere-Thermosphere System	Toshi Nishmura	Westcoast
12:00-13:30	Lunch on own		
12:00-13:30	CSSC lunch		Embarcadero
12:10-13:15	Student lunch (Innovative ideas on CEDAR Workshop)		Porthole
13:30-15:30	Recent advances in the understanding of Equatorial Ionization Anomaly (EIA) and ionospheric irregularities, part 2	Cesar Valladares	Pacific A&B
	Tutorials and user feedback on some of the major databases of CEDAR science	Bill Rideout	Harborside
	Incoherent Scatter Working Group	Lindsay Goodwin	Eastcoast

Thursday, June 29, 2023

Time	Agenda	Presenter / Convener	Room
	<u>Whole-Atmosphere Interconnections between the Stratospheric Polar Vortex and the Ionosphere-Thermosphere-Mesosphere: New Insights from Recent Modeling and Observational Studies</u>	Federico Gasperini	Westcoast
15:30-16:00	Break		
15:00-16:00	NSF office hour	Alan Liu	Meeting planner's office
16:00-18:00	<u>Traveling Ionospheric Disturbances Driven from Above and from Below</u>	Kate Zawdie	Harborside
	<u>Science in the GDC and DYNAMIC era - towards understanding and predictive capability of the ionosphere, thermosphere and mesosphere</u>	Douglas Rowland	Eastcoast
	<u>DARPA's Atmosphere as a Sensor Program</u>	Michael Nayak	Westcoast
18:30-20:00	Banquet Presentation: Behind the Chase: Engaging the Public through Aurora Photography and Science by Vincent Ledvina		Pacific A&B

Friday, June 30, 2023

Time	Agenda	Presenter / Convener	Room
7:00-8:00	Breakfast pastries		Pacific Foyer
8:00-9:30	Plenary	Chair: Angeline Burrell	Pacific A&B
8:00-8:15	Poster Prize Announcement	Matt Zettergren	Pacific A&B
8:15-8:35	Science Highlight III: Ultra Low Frequency Waves: Space Weather and Ionosphere-Thermosphere System Impacts	Michael Hartinger	Pacific A&B
8:35-8:50	Early Career science highlight III: Storm-time interhemispheric asymmetry of the ionospheric and thermospheric response	Qingyu Zhu	Pacific A&B
8:50-9:00	NOAA Updates	Tzu-Wei Fang	Pacific A&B
9:00-9:10	NOAA Space Weather Advisory Group (SWAG) Report	Rebecca Bishop	Pacific A&B
9:10-9:15	AFOSR slides	Angeline Burrell	Pacific A&B

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Time	Agenda	Presenter / Convener	Room
9:15-9:25	"Helio Coalition"	Lindsay Goodwin	Pacific A&B
9:25-9:30	Closing Remarks	Larisa Goncharenko, Mark Conde	Pacific A&B
9:30-10:00	Break		
10:00-12:00	<u>Snakes on a Spaceship: The Last Python</u>	Alexa Halford	Harborside
	<u>Uncertainty in the ionosphere-thermosphere models and measurements: sources, impacts, quantification, mitigation, and challenges</u>	Weijia Zhan	Westcoast
	Adjourn		