

2025 Space Physics Program Review

Dr. Julie Moses | January 28-30, 2025 | Albuquerque, NM

AFRL Innovation Lab at the UNM Science & Tech Park
801 University Blvd. SE | Albuquerque, NM 87106
The review will take place in the INVL Upper-Level Auditorium

Agenda Day 1 | January 28, 2025

Time	Topic	Speaker
8:45	Check in/ Log on	
0900	Welcome and AFOSR News	Julie Moses, AFOSR
0915	Global Ionospheric Processes	Jeff Holmes, AFRL/RV
0945	A Unified Lower Ionospheric Space Diagnostic	Morris Cohen, Georgia Tech
1015	Using GPS Radio Occultation to Monitor Sporadic-E	LtCol Daniel Emmons, AFIT
1045	BREAK	
1100	Diagnostics of Natural and Manmade Events over Ukraine	Larisa Goncharenko, MIT Haystack
1130	Modeling Plasmasphere Structure: Ducts and Irregularities	Joe Huba, Syntek, Inc.
1200	LUNCH	
1300	Understanding the Effects of Energy Input from the Solar Wind to the Thermosphere-Ionosphere System	Russell Landry, AFRL/RV
1330	Modelling Substorm Effects on the Upper Atmosphere Using High-Cadence Forcing from Ground-Based Observations	Cheng Sheng, UTA
1400	Meso-Scale Coupling from the Polar Cap to the Nightside Auroral Oval	Toshi Nishimura, BU
1430	Importance of Satellite Constellation to the Observations of Multiscale Structures in the I-T System	Yue Deng, UTA
1500	BREAK	
1515	Nonlinear Magnetosphere-Ionosphere Interactions in the Sub-Auroral Zone	Anatoly Streltsov, Embry-Riddle
	ADJOURN FOR THE DAY	

Agenda Day 2 Wednesday, January 29, 2025		
Time	Topic	Speaker
8:45	Check in/ Log on	
0900	The Impacts of Transient Gradients in Eclipse Occultation on the Whole Atmosphere	Sebastian Mrak, JHU/APL
0930	High-latitude Electrodynamics via Assimilation of Ionospheric Plasma Densities	Michael David, SDL
1000	Vertical Coupling in the Low-latitude Atmosphere due to Global Scale Waves and their Nonlinear Interactions	Federico Gasparini, Orionspace
1030	BREAK	
1045	High-Speed Image Intensifiers for Streamer Research	Geoff McHarg, USAFA
1145	LUNCH	
1330	Analysis of Demonstration and Science Experiment Observations	Jay Albert, AFRL/RV
1400	Investigating Propagation Characteristics of Ground Transmitter Signals	Lunjin Chen, UTD
1430	Solar Energetic Proton Access and Trapping in the Inner Magnetosphere	Mary Hudson, Dartmouth
1500	BREAK	
1515	Statistical Studies of High-Power Whistler Wave Transmissions from a Space-Born Transmitter	Paul Song, U Mass - Lowell
1545	Understand and Forecast Killer Electrons	Xiangning Chu, CU-Boulder
	ADJOURN FOR THE DAY	

Agenda Day 3 Thursday, January 30, 2025		
Time	Topic	Speaker
8:45	Check in/ Log on	
0900	Preparing Today to use Polarimetry for Tomorrow's Space Weather Forecasting	Curt DeKoning, CU-Boulder
0930	The Physics of the Solar Chromosphere from Millimeter Wavelengths	Stephen White, AFRL/RV

1000	The Early Chromospheric Dynamics of Solar Energetic Events	KD Leka, NWRA
1030	ADAPT Multisource Ensemble Modeling	Carl Henney, AFRL/RV
1130	Closing remarks	
	REVIEW ADJOURN	

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