



SuperDARN Workshop 2025 Program



June 2-6, 2025
Roanoke, VA



Start	End	Presenter <i>Authors</i>	Title
2025/06/01 (Sunday)			
4:00pm	11:00pm	Welcome reception with heavy hors d’oeuvres and (cash) bar Location: aka	
2025/06/02 (Monday)			
Session: Welcome and Reports			
9:00 – 10:30am (Monday)			
Chair: Dr. Jo Baker			
9:00am	9:10am	Organizing Committee	Opening Welcome
9:10am	9:20am	Chisham, G.	Introduction by the Chair of the SuperDARN PI Executive Council
9:20am	9:50am	Chisham, G.	Review of the Status of SuperDARN in 2025
9:50am	10:00am	Thomas, E.G. <i>Thomas, E.G. Dartmouth College, Hanover, NH, USA</i>	Scheduling Working Group Report
10:00am	10:10am	Sterne, K.T. <i>Sterne, K.T.(1); Grocott, A.(2) and the Data Analysis Working Group (1) Virginia Tech, Blacksburg, VA, USA; (2) Lancaster University, Lancaster, UK</i>	Data Analysis Working Group Report
10:10am	10:20am	Fuli, M.	Data Distribution Working Group Report
10:20am	10:30am	Billet, D.	Data Visualization Working Group Report
10:30am	11:00am	Coffee Break	
Session: In Memoriam: Dieter Andre and Kathryn McWilliams			
11:00am – Noon (Monday)			
Chair: Dr. Mike Ruohoniemi			
		Hussey G.C, Greenwald, R.A.	Reflections on Dieter Andre
		Billet D., Ponomarenko P., Hussey G.C.	Reflections on Kathryn McWilliams
12:00pm	1:30pm	Lunch Break	

Session: Technical Developments & Operations

1:30pm – 3:15pm (Monday)

Chair: Dr. William Bristow

1:30pm	1:35pm	Organizing Committee	Opening Remarks
1:35pm	1:55pm	Chisham, G.	A proposal for a SuperDARN refractive index task force
		<i>Gareth Chisham (1)</i> <i>(1) British Antarctic Survey, Cambridge, UK.</i>	
1:55pm	2:15pm	Thomas, E.G.	On the need for a new working group to consistently and transparently handle external data requests
		<i>Thomas, E. G.</i> <i>Dartmouth College, Hanover, NH, USA</i>	
2:15pm	2:35pm	Galeschuk, D.	On the acceleration of pyDARNio DMAP operations using Rust
		<i>Rohel, R.A. (1); Galeschuk, D. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, CAN</i>	
2:35pm	2:55pm	Ponomarenko, P.	Utilising elevation angle for improved SuperDARN velocity and geolocation estimates
		<i>Ponomarenko, P. (1); Galamkarian Nejad, M. (1), and Koustov, A. V. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, Canada</i>	
2:55pm	3:15pm	Kolkman, T.	Improved Receive Path Amplification Circuitry
		<i>Kolkman, T. (1); Galeschuk, D. (1); Krieger, K. (1); Hussey, G.C. (1); McWilliams, K.A. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, Canada</i>	
3:15pm	3:45pm	Coffee Break	

Session: Technical Developments & Operations

3:45pm – 5:15pm (Monday)

Chair: Kevin Sterne

3:45pm	4:05pm	Ponomarenko, P.	Determination of Heppner-Maynard boundary: ongoing problems and potential solutions
		<i>Ponomarenko, P. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, Canada</i>	
4:05pm	4:25pm	Ruohoniemi, J.M.	Enhanced operations at Blackstone with USRP-based electronics
4:25pm	4:45pm	Thomas, E.G.	Conversion of Iceland radars to USRP-based electronics and first results
4:45pm	5:05pm	All	Open/Discussion

All sessions are in the Washington Lecture unless otherwise noted.

5:05pm	5:15pm	Organizing Committee	Closing Remarks
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Dinner on your own

7:00pm	8:00pm	Data Visualization Working Group Meeting Crystal Ballroom (D-E)
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7:00pm	...	PI Meeting Buck Mountain Room
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2025/06/03 (Tuesday)

Session: Geomagnetic Storms & Modeling

9:00am – 10:30am (Tuesday)

Chair: Dr. Jiaojiao Zhang

9:00am	9:10am	Organizing Committee	Opening Remarks
9:10am	9:30am	Merkin, V.G.	Invited talk: Understanding stormtime geospace as a complex system: Recent progress from the Center for Geospace Storms <i>Merkin, V. G. (1); Sorathia, K. A. (1); Sciola, A. (1); Pham, K. (2); Lin, D. (2); Bao, S. (3); Wiltberger, M. (2); and the CGS team</i> <i>(1) Johns Hopkins Applied Physics Laboratory</i> <i>(2) NCAR/High Altitude Observatory</i> <i>(3) Rice University</i>
9:30am	9:50am	Sibeck, D.G.	Dynamics of the Subsolar Magnetosheath <i>Sibeck, D. G. (1) and Silveira, M. V. D. (2)</i> <i>(1) NASA/GSFC, Greenbelt, MD, USA</i> <i>(2) University of Sao Paulo - Lorena School of Engineering, Lorena, Brazil</i>
9:50am	10:10am	Foster, J.C.	Multi-Instrument Observations of Stormtime Mid-Latitude Geospace Phenomena <i>Foster, J.C.</i> <i>Massachusetts Institute of Technology Haystack Observatory (retired)</i>
10:10am	10:30am	Kunduri, B.S.R.	An examination of HF radar observations during a super geomagnetic storm <i>Kunduri, B. S. R. (1); Baker, J. B. H. (1); Ruohoniemi, J. M. (1); Nishimura, Y. (2); St. Maurice, J. -P (3); Erickson, P. J. (4); Foster, J. C. (4); Sterne, K. T. (1); Thomas, E. G. (5)</i> <i>(1) Virginia Tech, Blacksburg, VA, USA;</i> <i>(2) Boston University, Boston, MA, USA;</i> <i>(3) University of Saskatchewan, Saskatoon, Canada;</i> <i>(4) MIT Haystack Observatory, MA, USA;</i> <i>(5) Dartmouth College, NH, USA;</i>
10:30am	11:00am	Coffee Break	

All sessions are in the Washington Lecture unless otherwise noted.

Session: Geomagnetic Storms & Modeling

11:00am – Noon (Tuesday)

Chair: Dr. Angeline Burrell

11:00am	11:20am	Lin, D.	MAGE simulation of the effects of subauroral polarization streams (SAPS) on the global thermosphere and ionosphere during geomagnetic storms
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Wang, W. (1); Lin, D. (1); Merkin, V. (2)

(1) High Altitude Observatory, National Center for Atmospheric Research, Boulder, CO, USA; (2) Applied Physics Laboratory, The Johns Hopkins University, Laurel, MD, USA

11:20am	11:40am	Zhang, J.J.	Observation of Subauroral Polarization Streams Cutoff during Super Geomagnetic Storm
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Zhang, J. J. (1,2,3); Li, H. (1,2,3); Wang, X. Y.(4); Wang, W. (1,3); Deng, X. (1,3); Wang, C. (1,2); Zhang, Q. H. (1,2); Lan, A. L. (1,2,3); Yan, J. Y. (1,2); Ruohoniemi, J. M. (5); Nishitani, N. (6); Duang S. P. (1,2); Liu E. X. (7)

(1) National Space Science Center, Chinese Academy of Sciences, Beijing, China;

(2) University of Chinese Academy of Sciences, Beijing, China;

(3) Siziwang Observatory of Space Weather, National Space Science Center, Ulanqab, China;

(4) School of Space Science and Technology, Shandong University, Weihai, China;

(5) Virginia Polytechnic Institute and State University, Blacksburg, VA, USA;

(6) Nagoya University, Nagoya, Japan;

(7) Hangzhou Dianzi University, Hangzhou, China.

11:40am	Noon	Zou, Y.	Hemispheric symmetry and asymmetry of poleward moving radar auroral forms (PMRAFs) and associated polar cap patches during a geomagnetic storm
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Ying Zou1; Li-Jen Chen2; Brian M. Walsh3; Brandon Burkholder2,4; Yuzhang Ma5, William A. Bristow6, Larry Lyons7; Jiang Liu7,8; Sheng Tian8; Sneha Yadav8; Antea J. Coster9; Kathryn A. McWilliams10*

(1) Johns Hopkins University Applied Physics Laboratory, Laurel, MD, USA

(2) NASA Goddard Space Flight Center, Greenbelt, MD, USA

(3) Department of Mechanical Engineering and Center for Space Physics, Boston University, Boston, MA, USA

(4) Goddard Planetary Heliophysics Institute, University of Maryland Baltimore County, Baltimore, MD, USA

(5) Shandong Provincial Key Laboratory of Optical Astronomy and Solar-Terrestrial Environment, Institute of Space Sciences, Shandong University, Weihai, China

(6) Pennsylvania State University, University Park, PA, USA

(7) Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles, California, USA

(8) Department of Earth, Planetary and Space Sciences, University of California, Los Angeles, California, USA

(9) Massachusetts Institute of Technology Haystack Observatory, Westford, MA, USA

(10) Department of Physics & Engineering Physics, University of Saskatchewan, Saskatoon, SK, Canada

12:00pm	1:30pm	Lunch Break
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Session: Convection (Kathryn McWilliams Session)

1:30pm – 3:15pm (Tuesday)

Chair: Dr. Gareth Chisham

1:30pm	1:35pm	Organizing Committee	Opening Remarks
1:35pm	1:55pm	Yeoman, T.	Overview of Kathryn's work on convection
1:55pm	2:15pm	Hussey, G.C.	On the improvement of simultaneous full field-of-view operations
		<i>Rohel, R.A. (1); Ponomarenko, P.V. (1); McWilliams, K.A. (1); Hussey, G.C. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, CAN</i>	
2:15pm	2:35pm	Billett, D	New observations and insights from four-second resolution convection maps
		<i>Billett, D.(1), Rohel, R(1),, Martin, C.(1), McWilliams, K.(1), and Laundal, K(2)</i> <i>(1) University of Saskatchewan, SK, Canada, (2) University of Bergen, Norway</i>	
2:35pm	2:55pm	Galeschuk, D.	Borealis Update - v1.0 New Capabilities and Enhancements
		<i>Galeschuk, D. (1); Rohel, R. (1); Kolkman, T. (1); Marei, S. (1); Billett, D. (1); Ponomarenko, P. (1); Hussey, G. (1); McWilliams, K.A. (1)</i> <i>(1) University of Saskatchewan, Saskatoon, SK, Canada</i>	
2:55pm	3:15pm	Nishimura, Y.	High-Time Resolution Ionospheric Convection Associated with Nightside Auroral Intensifications
		<i>Nishimura, Y. (1); Lyons L. R. (2); Billett D. D. (3), Rohel R. A. (3), Ponomarenko P. (3), Deng Y. (4), Sheng C. (4), Donovan E. F. (5), Angelopoulos V. (2), Nishitani N. (6)</i> <i>(1) Boston University, Boston, MA, USA</i> <i>(2) University of California, Los Angeles, CA, USA</i> <i>(3) Institute of Space and Atmospheric Studies, University of Saskatchewan, Saskatoon, SK, Canada</i> <i>(4) University of Texas, Arlington, TX, USA</i> <i>(5) University of Calgary, Calgary, Alberta, Canada</i> <i>(6) Nagoya University, Nagoya, Japan</i>	
3:15pm	3:45pm	Coffee Break	

Session: MI Coupling

3:45pm – 5:15pm (Tuesday)

Chair: Dr. Evan Thomas

3:45pm	4:05pm	Lyons, L.	Invited talk: SuperDARN: Observations Demonstrating Meso-scale Coupling from the Polar Cap to Major Auroral Oval Disturbances
<i>Larry R. Lyons (1), Yukitoshi Nishimura (2), Jiang Liu (1,3), Sneha Yadav (1), Ying Zou (4), William A. Bristow (5), Eric Donovan (6), Nozomu Nishitani (7), Kazuo Shiokawa (7), Keisuke Hosokawa (8)</i> <i>(1) Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles, CA 90095-1565, USA</i> <i>(2) Center for Space Physics and Department of Electrical and Computer Engineering, Boston University, Boston, MA 02215, USA,</i> <i>(3) Department of Earth, Planetary, and Space Sciences, University of California, Los Angeles, CA 90095-1565, USA</i> <i>(4) The Johns Hopkins University Applied Physics Laboratory, Laurel, MD, USA</i> <i>(5) Department of Meteorology and Atmospheric Science, 621 Walker Building, The Pennsylvania State University, State College, PA 16801</i> <i>(6) Department of Physics and Astronomy, University of Calgary, Calgary, Alberta, Canada</i> <i>(7) Institute for Space-Earth Environmental Research, Nagoya University, Nagoya, Aichi 464-8601, Japan</i> <i>(8) Graduate School of Communication Engineering and Informatics, University of Electro-Communications, Chofu, Tokyo, 182-8585, Japan</i>			
4:05pm	4:25pm	Bristow, W.A.	Convection Velocity Covariance Estimated from SuperDARN Observation
<i>(1) W. A. Bristow; (1) M. F. Wilcox</i> <i>(1) Pennsylvania State University, University Park, PA, USA</i>			
4:25pm	4:45pm	Burrell, A.G.	Developing an Empirical Model of Auroral Boundaries
<i>Angeline G. Burrell (1), Gareth Chisham (2), Bruce Fritz (1), Kate Zawdie (1)</i> <i>(1) Naval Research Laboratory, Washington, DC, USA (2) British Antarctic Survey, Cambridge, UK</i>			
4:45pm	5:05pm	Lin, D	Magnetospheric Inputs of Poynting Flux to and Its Effects in the Ionosphere
<i>Lin, D. (1); Wang, W. (1); Shi, X. (1,2); Kunduri, B. (2); Merkin, V. (3); Sorathia, K. (3)</i> <i>(1) NSF NCAR, Boulder, CO, USA; (2) Virginia Tech, Blacksburg, VA, USA; (3) JHU/APL, Laurel, MD, USA</i>			
5:05pm	5:15pm	Organizing Committee	Closing Remarks
Dinner on your own			
7:00pm	9:00pm	Data Analysis Working Group Meeting Crystal Ballroom (D-E)	
7:00pm (TBR)		Scheduling, Spacecraft Working Group Meeting Location TBD	

2025/06/04 (Wednesday)

Session: TIDs & Neutral Atmosphere

9:00am – 10:30am (Wednesday)

Chair: Dr. Gareth Perry

9:00am	9:10am	Organizing Committee	Opening Remarks
9:10am	9:30am	Frissell, N.A.	Invited talk: MSTID Response to Weak Polar Vortex Events as Observed by SuperDARN Radars in the Northern and Southern Hemispheres <i>Frissell, Nathaniel A. (1), James P. Fox (1), Nicholas Guerra (1), Michael T. Molzen (1), Joseph Klobusicky (1), V. Lynn Harvey (2), J. B. H. Baker (3), and J. M. Ruohoniemi (3), Mary Lou West (4,5), and Robert B. Gerzoff (5)</i> <i>(1) The University of Scranton, Scranton, PA, USA; (2) University of Colorado, Boulder, CO, USA; (3) Virginia Tech, Blacksburg, VA, USA; (4) Montclair State University, Montclair, NJ, USA; (5) HamSCI Community Volunteer</i>
9:30am	9:50am	Erickson, P. J.	Recent Studies of Multiscale Cold Plasma Dynamics and TIDs at Subauroral Latitudes <i>Erickson, P. J. (1); Goncharenko, L. P. (1); Derghazarian, S. (1); Aa, E. (2); Coster, A. J. (1); Zhang, S.-R. (1)</i> <i>(1) Haystack Observatory, Massachusetts Institute of Technology, Westford, MA, USA; (2) National Space Science Center, Chinese Academy of Sciences, Beijing, China</i>
9:50am	10:10am	Wang, W.	Study of Continental-scale Poleward Medium-Scale Traveling Ionospheric Disturbance Observed at Middle latitudes <i>Wei Wang(1), Jiaojiao Zhang(1), Chi Wang(1,2), Shunrong Zhang(3)</i> <i>(1) State Key Laboratory of Space Weather, National SpaceScience Center (NSSC), Chinese Academy of Sciences, Beijing, China (2) University of the Chinese Academy of Sciences, Beijing, China (3) MIT Haystack Observatory, Westford, MA, USA</i>
10:10am	10:30am	Shi, X	Multi-Scale Traveling Ionospheric Disturbances Generated by High-Latitude Ultra-Low-Frequency Waves in Numerical Simulations <i>Shi, X. (1,2); Wu, H. (2); Wang, W. (2); Lin, D. (2); Hartinger, M.D. (3,4); Chakraborty, S. (5); Baker, J. B. H. (1)</i> <i>(1) Department of Electrical and Computer Engineering, Virginia Tech, Blacksburg, VA, USA; (2) High Altitude Observatory, National Center for Atmospheric Research, Boulder, CO, USA; (3) Space Science Institute, Boulder, CO, USA; (4) Department of Earth, Planetary and Space Sciences, University of California Los Angeles, CA, USA; (5) Space and Atmospheric Instrumentation Lab, Embry-Riddle Aeronautical University, Daytona Beach, FL, USA</i>
10:30am	11:00am	Coffee Break	

Session: Multi-Instrument & Collaboration

11:00am – Noon (Wednesday)

Chair: Dr. Dave Sibeck

11:00am	11:20am	Gallardo-Lacourt, B.	Invited talk: Exploring the prospects for a vivid collaborative science between the GDC mission and the Ground-Based community <i>Gallardo-Lacourt, B. (1,2); Rowland, D. E. (1); Kepko, L. (1); Garcia-Sage, K (1)</i> <i>(1) NASA Goddard Space Flight Center, Greenbelt, MD, USA; (2) The Catholic University of America, Washington, DC, USA</i>
11:20am	11:40am	Hussey, G.C.	Phase and Amplitude Calibration of ICEBEAR and SuperDARN Receiver Arrays Using Aircraft Echoes <i>Pitzel, B.(1); Rohel, R.(1); Hussey, G.C.(1); McWilliams, K.A.; Galeschuk, D.(1); Marei, S.(1); Huyghebaert, D.(2); Ivarsen, M.F.(1)</i> <i>(1) Institute of Space and Atmospheric Studies (ISAS), Department of Physics and Engineering Physics, University of Saskatchewan, Saskatoon, Canada</i> <i>(2) Department of Physics and Technology, UiT The Arctic University of Norway, Tromsø, Norway</i>
11:40am	Noon	Nishitani, N.	Initial results of the Fall 2023 SuperDARN-Arase conjunction campaign: subauroral polarization streams wave structure (SAPSWs) <i>Hori, T. (1); Hosokawa, K. (2); Nishitani, N. (1); Shinbori, A. (1); Miyoshi, Y. (1); Teramoto, M. (3); Obana, Y. (4); Yukimatu, A.S. (5)(6); Keika, K. (7); Kasahara, S. (7); Yokota, S. (8); Kasaba, Y. (9); Kumamoto, A. (9); Tsuchiya, F. (9); Matsuda, S. (10); Kasahara, Y. (10); Matsuoka, A. (11); Kazama, Y. (12); Wang, S.-Y. (12); Tam, S.W.Y. (13); Jum, C.-W. (1); Shinohara, I. (14)</i> <i>(1) Institute for Space-Earth Environmental Research, Nagoya University, (2) University of Electro-Communications, (3) Kyushu Institute of Technology, (4) Kyushu University, (5) National Institute of Polar Research, (6) The Graduate Institute for Advanced Studies, SOKENDAI, (7) The University of Tokyo, (8) Osaka University, (9) Tohoku University, (10) Kanazawa University, (11) WDC, Kyoto for Geomagnetism, Kyoto University, (12) Academia Sinica, Taiwan, (13) National Cheng Kung University, Taiwan, (14) Institute of Space and Aeronautical Science, Japan Aerospace Exploration Agency</i>

Box lunch on buses and excursion to Blacksburg or Cascades hiking

12:00pm

4:00pm

8:30pm

Dinner at Lane Stadium, South Club Room

Dinner starts 6pm

2025/06/05 (Thursday)

Session: Ionospheric Physics and Irregularities

9:00am – 10:30am (Thursday)

Chair: Dr. Dan Billet

9:00am	9:10am	Organizing Committee	Opening Remarks
9:10am	9:30am	Erickson, P. J.	Invited talk: Incoherent scatter radar: An invaluable tool in the field of space and plasma physics <i>Erickson, P. J. (1); Baddeley, L. J. (2); ISSI ISR Working Group (3)</i> <i>(1) Haystack Observatory, Massachusetts Institute of Technology, Westford, MA, USA; (2) The University Centre in Svalbard (UNIS), Svalbard, Norway; (3) International Space Science Institute ISR Working Group, Bern, Switzerland</i>
9:30am	9:50am	Nishitani, N.	Statistics of dusk scatter echoes including ULF waves <i>Hosokawa, K. (1); Hori, T. (2); Obana, Y. (3); Nishitani, N. (2); Teramoto, M. (4); Ponomarenko, P. V. (5); Shinbori, A. (2); Yukimatu, A. S. (6); Miyoshi, Y. (2)</i> <i>(1) Univ. of Electro-Communications, Tokyo, Japan; (2) ISEE, Nagoya University, Nagoya, Japan; (3) Kyushu University, Fukuoka, Japan; (4) Kyushu Institute of Technology, Kokura, Japan; (5) Univ. of Saskatchewan, Saskatoon, Canada; (6) National Institute of Polar Research, Tokyo, Japan</i>
9:50am	10:10am	Emmons, D.J.	GNSS Radio Occultation Measurements of Sporadic-E Layers <i>Emmons, D.J. (1); Parsch, E.V. (2); Wu, D.L. (3); Swarnalingam, N. (3); Salinas, C.C.J.H. (3); Franz, A.L. (1); Dao, E.V. (4)</i> <i>(1) Air Force Institute of Technology, Department of Physics, Dayton, OH, United States</i> <i>(2) United States Air Force Academy, Department of Physics and Meteorology, Colorado, CO, United States</i> <i>(3) NASA Goddard Space Flight Center, Greenbelt, MD, United States</i> <i>(4) Space Vehicles Directorate, Air Force Research Laboratory, Albuquerque, NM, United States</i>
10:10am	10:30am	Anderson, T. S.	Artificial field-aligned irregularity generation at HAARP and upcoming bistatic coherent imaging campaign <i>Anderson, T. S. (1); Lay, E. H. (1); Jeffery, C. A. (1); Cummings, I. A. (1); Bernhardt, P. A. (2); McCarrick, M. (2); Bristow, W. A. (3); Briczinski, S. J. (4)</i> <i>(1) Los Alamos National Laboratory, Los Alamos, NM, USA; (2) University of Alaska Fairbanks, Fairbanks, AK, USA; (3) Pennsylvania State University, State College, PA, USA; (4) Naval Research Laboratory, Washington, DC, USA</i>
10:30am	11:00am	Coffee Break	

Session: Ionospheric Physics and Irregularities

11:00am – Noon (Thursday)

Chair: Dr. Nozomu Nishitani

11:00am	11:20am	Zhang, J. J.	Auroral Activity Observed from Unusual Latitudes in China and Its Underlying Significance
		<i>Zhang, J. J. (1,2,3); Deng, X. (1,2,3); Wang, C. (1,2); Xu, J. Y. (1,2); Li, Hui (1,2); Li, Hang (1,2,3); Wang, W. (1,3); Liang, J. Y. (1,2); Shepherd, S. G. (4); Thomas, E. G. (4); Lan, A. L. (1,2,3); Yan, J. Y. (1,2); Wang, Z. (1,2,3); Zhang, Q. H. (1,2); Liu, Z. Q. (1)</i> <i>(1) National Space Science Center, Chinese Academy of Sciences, Beijing, China;</i> <i>(2) University of Chinese Academy of Sciences, Beijing, China;</i> <i>(3) Siziwang Observatory of Space Weather, National Space Science Center, Ulanqab, China;</i> <i>(4) Thayer School of Engineering, Dartmouth College, Hanover, New Hampshire, USA.</i>	
11:20am	11:40am	Perry, G. W.	Remote sensing of the ionospheric impact of the April 2024 total solar eclipse
		<i>Perry, G. W. (1), Pandey, K. (1), Kunduri, B.S.R (2), Frissell, N. A. (3), Emmons, D. J. (4), Chartier, A. T. (5), Themens, D. R. (6,7), Huba, J. D. (8), HamSCI Community (9)</i> <i>(1) Center for Solar-Terrestrial Research, New Jersey Institute of Technology, Newark, NJ, USA, (2) Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, (3) The University of Scranton, Scranton, PA, USA, (4) Air Force Institute of Technology, Department of Engineering Physics, WPAFB, USA, (5) Applied Physics Laboratory, Johns Hopkins University, Laurel, MD, USA, (6) University of Birmingham, Birmingham, United Kingdom, (7) University of New Brunswick, Fredericton, Canada, (8) Syntek Technologies, Fairfax, DC, USA, (9) Ham Radio Science Citizen Investigation (HamSCI), HamSCI.org</i>	
11:40am	Noon	Feng, J.Y.	Rapid Lower Ionospheric Responses to the April 2023 Geomagnetic Storm as Observed by VLF Transmitter Signals
		<i>Feng, J. Y. (1); Lin, D. (2); Wang, W. B. (2); Shi, X. L. (3); Chisham, G. (4); Wu, H. N. (2); Xu, W. (1); Ni, B. B. (1)</i> <i>(1) Wuhan University, Wuhan, China;</i> <i>(2) High Altitude Observatory, National Center for Atmospheric Research, Boulder, CO, USA</i> <i>(3) Virginia Tech, Blacksburg, VA, USA</i> <i>(4) British Antarctic Survey, Cambridge, United Kingdom</i>	
12:00pm	1:30pm	Lunch Break	

Session: Novel Observations & Techniques

1:30pm – 3:15pm (Thursday)

Chair: Dr. Pasha Ponomarenko

1:30pm	1:35pm	Organizing Committee	Opening Remarks
1:35pm	1:55pm	Bailey, S.	Space@VT Overview
1:55pm	2:15pm	Thomas, E. G.	Multi-frequency sounding experiments with SuperDARN radars: Recent results and future directions
		<i>Thomas, E. G. (1); Shepherd, S. G. (1)</i> <i>(1) Dartmouth College, Hanover, NH, USA</i>	
2:15pm	2:35pm	Nishitani, N.	SuperDARN HOP radars observation of Ionospheric convection associated with low-latitude auroras
		<i>Nozomu Nishitani (1), Tomoaki Hori (1), Keisuke Hosokawa (2), Atsuki Shinbori (1), Yuki Obana (3), Mariko Teramoto (4), Kazuo Shiokawa (1), Ryuho Kataoka (5)</i> <i>(1) Institute for Space-Earth Environmental Research, Nagoya University; (2) Department of Communication Engineering and Informatics, University of Electro-Communications; (3) International Research Center for Space and Planetary Environmental Science, Kyushu University; (4) Kyushu Institute of Technology; (5) OIST</i>	
2:35pm	2:55pm	Beser, K.	Automatic detection of polar cap patches in SuperDARN observations
		<i>Beser, K. (1); Perry, G. W. (1)</i> <i>(1) New Jersey Institute of Technology, Newark, NJ, USA</i>	
2:55pm	3:15pm	Troyer, R.	Using oblique, bistatic receptions of SuperDARN signals to measure HF propagation in the auroral and polar cap regions
		<i>Riley Troyer (1); Jeffrey Holmes (2), Evan Thomas (3); Simon Shepherd (3); Eugene Dao (2); John Carilli (2)</i> <i>(1) Space Dynamics Laboratory, KAFB, NM, USA; (2) Air Force Research Laboratory, KAFB, NM, USA; (3) Dartmouth College, Hanover, NH, USA</i>	
3:15pm	3:45pm	Coffee Break	
3:45pm	5:05pm	Poster Session, Crystal Ballroom Foyer (see poster listing below)	
5:05pm	5:15pm	Organizing Committee	Closing Remarks
6:00pm	10:00pm	Dinner Banquet Crystal Ballroom	

2025/06/06 (Friday)

Session: Open Session

9:00am – 10:00am (Friday)

Chair: Dr. Bharat Kunduri

9:00am	9:20am	TBD
9:20am	9:40am	Greenwald, R.
9:40am	10:00am	Professor Rabi

Session: Planning & Summary

10:00am – 10:40am (Friday)

10:00am	10:30am	TBD	Proposals for future SuperDARN Workshops
10:30am	10:40am	Chisham, G.	Closing summary by the Chair of the SuperDARN PI Executive Council
11:30am	1:00pm		Lunch Break Crystal Ballroom
1:00pm	10pm		Optional tour to Blackstone radar site (dinner not included with registration)

Posters

Number	Author	Title
1	Billett, D	The 2022 Starlink Geomagnetic Storms: Global Thermospheric Response to a High-Latitude Ionospheric Driver
	<i>Billett, D. (1), K. Sartipzadeh(2), Magnus Fagernes Ivarsen(1), E. Iorfida(3), E. Doornbos(4), E. C. Kalafatoglu Eyiguler(1), K. Pandey(5), and K. A. McWilliams(1)</i> <i>(1) University of Saskatchewan, SK, Canada</i> <i>(2) UiT The Arctic University of Norway, Norway</i> <i>(3) Aurora Technology B.V. for European Space Agency (ESA), ESTEC, The Netherlands</i> <i>(4) Royal Netherlands Meteorological Institute (KNMI), The Netherlands</i> <i>(5) New Jersey Institute of Technology, NJ, USA</i>	
2	van Wyk, D.J.	Enhanced Capabilities of SANSAs SuperDARN Radar: Dual-Channel, Interferometry, and Expanded Space Weather Observations
	<i>van Wyk, D.J. (1); Kosch, M.(1); Ward, J.(1)</i> <i>(1) South African National Space Agency (SANSAs)</i>	
3	Chisham, G.	Using vorticity to characterise meso-scale ionospheric flow variations
	<i>Gareth Chisham (1) and Mervyn P. Freeman (1)</i> <i>(1) British Antarctic Survey, Cambridge, UK.</i>	
4	Burrell, A.G.	Automated Identification of Auroral Luminosity Boundaries using pyIntensityFeatures
	<i>Angeline G. Burrell (1), Gareth Chisham(2), Nicola Longden(3), Kate Zawdie(1)</i> <i>(1) Naval Research Laboratory, Washington D.C., USA (2) British Antarctic Survey, Cambridge, UK (3) KPMG, Australia</i>	
5	Frissell, N.A.	First Observations Linking Large-Scale Traveling Ionospheric Disturbances to Polar Vortex Strength
	<i>Frissell, Nathaniel A. (1); V. Lynn Harvey (2); Erich Becker (3); Sophie R. Phillips (4); Katrina Bossert (4); Sevag Derghazarian (5); Larisa P. Goncharenko (5); Philip J. Erickson (5); Mary Lou West (6,7); Diego S. Sanchez (1); Gareth W. Perry (8); William D. Engelke (9); Nicholas W. Callahan (10,7); Travis Atkison (10); Robert B. Gerzoff (7); Devin M. Diehl (1,7); Richard Collins (11); Sharon L. Vadas (3); J. Michael Ruohoniemi (12); and Joseph B. H. Baker (12)</i> <i>(1) Department of Physics and Engineering, The University of Scranton, Scranton, PA, USA; (2) Laboratory for Atmospheric and Space Physics, University of Colorado Boulder, Boulder, CO, USA; (3) Northwest Research Associates, Boulder, CO, USA; (4) School of Mathematical and Statistical Sciences, Arizona State University, Tempe, AZ, USA; (5) Haystack Observatory, Massachusetts Institute of Technology, Westford, MA, USA; (6) Department of Physics and Astronomy, Montclair State University, Montclair, NJ, USA; (7) Ham Radio Science Citizen Investigation Community Volunteer, Scranton, PA, USA; (8) Center for Solar-Terrestrial Research, New Jersey Institute of Technology, Newark, NJ, USA; (9) Center for Advanced Public Safety, The University of Alabama, Tuscaloosa, AL, USA; (10) Department of Computer Science, The University of Alabama, Tuscaloosa, AL, USA; (11) Geophysical Institute, University of Alaska Fairbanks, Fairbanks, AK, USA; (12) Bradley Department of Electrical and Computer Engineering, Virginia Tech, Blacksburg, VA, USA</i>	
6	Burrell, A.G.	Equitable Letters for Space and Physics
	<i>Alexa Halford (1), Angeline G. Burrell (1), John Coxon (1, 2), McArthur Jones Jr. (1), Julie Barnam (1, 3)</i> <i>(1) Equitable Letters for Space and Physics</i> <i>(2) Northumbria University</i> <i>(3) LASP</i>	
7	Shi, X.	Solar flare-induced gradient drift instability observed by SuperDARN HF radars
	<i>Chakraborty, S. (1); Nishitani, N. (2); Shi, X. (3,4); Ponomarenko, P. (5); Ruohoniemi, J.M. (3); Baker J.B.H. (3); Coster, A. (6); Häggström, I. (7)</i> <i>(1) Embry-Riddle Aeronautical University, Daytona Beach, FL, USA; (2) Institute for Space-Earth Environmental Research, Nagoya University, Nagoya, Japan; (3) Department of Electrical and Computer Engineering, Virginia Tech, Blacksburg, VA, USA; (4) High Altitude Observatory, NCAR, Boulder, CO, USA; (5) University of Saskatchewan, Saskatoon, Canada; (6) Haystack Observatory, Massachusetts Institute of Technology, Westford, MA; (7) European Incoherent Scatter Scientific Association (EISCAT), Kiruna, SE-981 92, Sweden</i>	
8	Romanek, V.	An examination of the impact of Strong Thermal Emission Velocity Enhancement (STEVE) on mid-latitude ionosphere

	<i>Romanek, Veronica (1); Kunduri, Bharat (1); Ruohoniemi, J. Michael (1); Baker, Joseph (1); Gallardo-Lacourt, Bea (2) (1) Virginia Tech, Blacksburg, VA, USA; (2) Catholic University of America, Washington, DC, USA</i>	
9	Sterne, K.T.	Remote Transmitter Monitoring Project
	<i>Beamer, T.; Betz, W.A.; Carpenter, C.T.; Flynn, W.A.; Theodros, D.; Sterne, K.T. Virginia Tech, Blacksburg, VA, USA</i>	
10	Wanner, T.	A SuperDARN-Based Validation Method for the REMIX Ionospheric Model by Assessing ExB Convection Patterns
	<i>Wanner, T. (1)(2); Ruohoniemi, J.M. (1); Baker J.B.H.(1); (1) Bradley Department of Electrical and Computer Engineering, Virginia Tech., Blacksburg, VA, United States; (2)The Johns Hopkins University Applied Physics Laboratory, Laurel, MD, USA,</i>	
11	Sengupta, S.	Probabilistic Regional Forecasting of Geomagnetically Induced Currents (GICs) using a Refined Machine Learning-Based Classifier
	<i>Sankalita Sengupta, Bharat Kunduri, Joseph Baker, J. Michael Ruohoniemi, Xueling Shi, Michael Hartinger</i>	
12	Pitzl, A. P.	Analysis of Phase Code Modulation on Optimizing Data Resolution at the Blackstone SuperDARN Site
	<i>Pitzl, A.P.(1); Sterne, K.T. (1); Ruohoniemi, J.M. (1); Thomas, E.G. (2) (1) Virginia Tech, Blacksburg, VA, USA; (2) Dartmouth College, Hanover, NH, USA</i>	
13	Conti, C.M.	Preliminary Analysis of the Effect of Earth's Magnetic Field on HF Propagation
	<i>Conti, C.M. (1); Kunduri, B (1); Baker, J.B.H. (1); Ruohoniemi, J.M. (1) (1) Virginia Tech, Blacksburg, VA, USA</i>	
14	Ruohoniemi, J.M.	TBD
15	Sanchez, D.	Climatology of Large-Scale Traveling Ionospheric Disturbances Observed with 14 MHz Amateur Radio Using a Novel Automated Detection Technique
	<i>Sanchez, D.(1), West, M.L.(2), Frissell, N.A.(1), Perry, G.(3), Harvey, V.L.(4), Engelke, B.(5), Callahan, N.W.(1), Erickson, P.J.(6), Becker, E.(7), Vadas, S.L.(7) (1) The University of Scranton, Scranton, PA, USA (2) Montclair State University, Montclair, NJ, USA (3) New Jersey Institute of Technology, Newark, NJ, USA (4) University of Colorado Boulder, Boulder, CO, USA (5) University of Alabama, Tuscaloosa, AL, USA (6) MIT Haystack Observatory, Westford, MA, USA (7) Northwest Research Associates, Boulder, CO, USA</i>	
16	Haralambous, H.	Monitoring plasma drifts over Europe using Digisondes

