



Agenda for 2012 SuperDARN Workshop

Sunday, May 27, 1700-2000 Room: First (Ground) floor Restaurant

Reception and Registration

Monday, May 28, 0800-0900 Room: Hengsheng Functionroom (Third floor)

Registration

Welcome and Status report

Monday, May 28, 0900-1020

Room: Hengsheng Functionroom

Chairperson: Hongqiao Hu

Time	Title	Speaker
09:00-09:10	Welcome Address	Huigen Yang
09:10-09:40	SuperDARN Radar Status Report 2012	Mark Lester
09:40-10:00	Public Engagement with SuperDARN	James Wild
10:00-10:20	Scheduling Working Group Report	

10:20-10:40 Coffee break

Programmatic

Monday, May 28, 1040-1210

Room: Hengsheng Functionroom

Chairperson: Ruiyuan Liu

Time	Title	Speaker
10:40-11:10	Space Physics and Space Weather Exploration in China (Invited talk)	Chi Wang
11:10-11:30	KuaFu – exploring the Sun-Earth connection	Mark Lester
11:30-11:50	Scientific Capabilities of SuperDARN Radars Sited in Northern China	John Michael Ruohoniemi
11:50-12:10	The Russian Segment of Decameter Coherent Radars (SuperDARN): Current Status and Plans	Vladimir Kurkin

12:10-13:30 Lunch (Provided, First (Ground) floor Restaurant of the Hotel)



Programmatic (continued)

Monday, May 28, 1330-1520

Room: Hengsheng Functionroom

Chairperson: Pavlo Ponomarenko

Time	Title	Speaker
13:30-13:50	The Longyearbyen Dynamic Coherent Radar – a Norwegian SuperDARN radar	Dag Lorentzen
13:50-14:10	The European Cluster Assimilation Technology (ECLAT) project and some early SuperDARN results	Mark Lester
14:10-14:30	An update on the Azores MSI radars	Simon Shepherd
14:30-14:50	An update on the Adak MSI radars	William Bristow

14:50-15:10 Coffee break

Programmatic (continued)

Monday, May 28, 1510-1700

Room: Hengsheng Functionroom

Chairperson: William Bristow

Time	Title	Speaker
15:10-15:30	The first observations at SuperDARN EKB radar	Dmitrii Kushnarev
15:30-15:50	New antenna layout for the TIGER-3 radar installation	Andrew McDonald
15:50-16:10	HF Radar and UAP Observations at Zhongshan, Antarctica	Hongqiao Hu
16:10-16:30	Canadian SuperDARN Data Provisioned via the Canadian Space Science Data Portal	Robert Rankin
16:30-17:00	Contributions of Prof John Samson to Enhancing Recognition of the Value of SuperDARN Measurements in the Broader Scientific Community (Invited talk)	Raymond Greenwald

18:00 Banquet (Hosted by PRIC, at a nearby restaurant by Bus)

Tuesday, May 29, 0800-0900 Room: Hengsheng Functionroom (Third floor)

Registration



Analysis Techniques

Tuesday, May 29, 0900-1000

Room: Hengsheng Functionroom

Chairperson: Akira Yukimatu

Time	Title	Speaker
09:00-09:20	Application of Advanced Data Mining Techniques to SuperDARN Data	Joseph Baker
09:20-09:40	Two-frequency operation mode: pluses and minuses	Pavlo Ponomarenko
09:40-10:00	A radar data simulator for SuperDARN	Alvaro Ribeiro
10:00-10:20	FITACF Using CFAR for Backscatter Power Detection in TIGER	Clarence Leon

10:20-10:40 Coffee Break

Radio Wave Propagation

Tuesday, May 29, 1040-1200

Room: Hengsheng Functionroom

Chairperson: Christian Hanuise

Time	Title	Speaker
10:40-11:00	Ionospheric disturbances observed with the SuperDARN Hokkaido radar and GPS network after the 2011 Tohoku earthquake in Japan	Tadahiko Ogawa
11:00-11:20	Study of ionospheric disturbances during solar flare events with the SuperDARN Hokkaido Radar	Nozomu Nishitani
11:20-11:40	Obtaining of Ionospheric Layers' Parameters Using Ground-scatter Data of SuperDARN Radar	Konstantin Kutelev
11:40-12:00	Klein-Gordon Equations for Transverse Waves in an Axisymmetric Background Magnetic Field	Qiang Hu

12:00-13:30 Lunch (Provided, First (Ground) floor Restaurant of the Hotel)

**Radio Wave Propagation (Continued)****Tuesday, May 29, 1330-1500****Room: Hengsheng Functionroom****Chairperson: Nozomu Nishitani**

Time	Title	Speaker
13:30-13:50	Statistical Properties of Oblique High-Frequency Ground-Scatter	Timothy Theurer
13:50-14:10	On the consistency of SuperDARN velocity estimates	Pavlo Ponomarenko
14:10-14:30	Polar Cap Absorption Observed by King Salmon HF Rada	Tsutomu Nagatsuma
14:30-14:50	An adjusted location model for SuperDARN backscatter echoes	Er Xiao Liu

14:50-15:10 Coffee Break**Multi-instrument studies****Tuesday, May 29, 1510-1510****Room: Hengsheng Functionroom****Chairperson: James Wild**

Time	Title	Speaker
15:10-15:30	The efficiency of artificial ionospheric pumping by radio waves – upper hybrid resonance and optical emissions	Michael Kosch
15:30-15:50	Opportunities for the Swarm Mission: The Ring Current	Malcolm Dunlop
15:50-16:10	Investigation of global convection mapping using Swarm satellite and SuperDARN radar data	Robyn Fiori
16:10-16:30	Conjugate dayside responses to solar wind discontinuities with the 40° magnetometer chain and SuperDARN radars	Xia Cai

Poster Session**Tuesday, May 29, 1630-1800 Place: Outside of Hengsheng Functionroom****(Third floor) Assistant: Yong Wang**

- P1. Alvaro Ribeiro, et al., A comparison of SuperDARN ACF fitting methods
- P2. Tomoaki Hori et al., An integrated analysis platform powered by fitacf CDF and the THEMIS tool developed by ERG-Science Center (ERG-SC)
- P3. Kevin Sterne et al., Hardware/Software Overhaul: Upgrading to the QNX 6 style of electronics
- P4. Akira Sessai Yukimatu et al., Syowa SENSU imaging radar and the future perspectives
- P5. G. Chisham and M. P. Freeman, A reassessment of SuperDARN meteor echoes from the upper mesosphere and lower thermosphere
- P6. Zejun Hu et al., Comparative analysis of the auroral bending disturbance on duskside oval between northern and southern hemispheres



- P7. Mariko Teramoto et al., Spatial characteristics of mid-latitude Pi2 pulsations observed by the SuperDARN Hokkaido radar
- P8. W. Bristow and J. Spaleta, A dynamic model of the convection reversal boundary
- P9. Z. Mtumela, J. P. S. Rash and P. R. Sutcliffe, An investigation of high velocity flows in HF radar data during northward interplanetary magnetic field, non-substorm interval
- P10. Adrian Grocott et al., A quantitative deconstruction of the morphology of high-latitude ionospheric convection
- P11. Evan Thomas et al., Direct observations of the role of convection electric fields in the formation of a polar tongue of ionization from storm enhanced density
- P12. Zanyang Xing et al., Dayside poleward moving auroral forms and ionospheric convection during stable IMF conditions
- P13. K. Govender and A. D. M. Walker, Pc 5 pulsation investigation using SuperDARN radars and ground based magnetometers
- P14. J. A. Hutchinson et al., A Superposed Epoch Analysis of Geomagnetic Storms over a the Last Solar Cycle
- P15. Yewen Wu et al., Multi-instrument observations of plasma features in the arctic ionosphere during the main phase of a geomagnetic storm in December 2006
- P16. Junming Liu et al., Spontaneous and trigger-associated substorms compared: electrodynamic parameters in the polar ionosphere
- P17. Ziqian Liu et al., Dipole Tilt Control of the Magnetopause for Southward IMF from Global Magnetohydrodynamic Simulations
- P18. Zhongwei Yang et al., Contributions to the cross shock electric field at super- critical perpendicular shocks: Impact of the pickup ions
- P19. Rui Wang et al., Global and seasonal variations of stratospheric gravity wave activity with GPS/COSMIC data
- P20. Qi Qiu et al., The relationship between intensity and width of dayside auroral arcs
- P21. Qian Wang et al., Clustering analysis for dayside aurora based on morphological character
- P22. Xiaoliang Ling, Call for Papers from Advances in Polar Science

18:00-21:00 Working Group Meetings (Dinner provided, Tianjiao Ballroom at the third floor of the hotel): PI, Software, Scheduling, Data Distributions.

Wednesday, May 30, 0800-0900 Room: Hengsheng Functionroom (Third floor)

Late Registration



Ionospheric Irregularities

Wednesday, May 30, 0900-1000

Room: Hengsheng Functionroom

Chairperson: Beichen Zhang

Time	Title	Speaker
09:00-09:20	Using a frequency shifting technique to statistically determine average scattering volume electron densities for SuperDARN	Geroge Sofko
09:20-09:40	Decameter plasma irregularities in F-region polar cap plasma	Kjellmar Oksavik
09:40-10:00	On the determination of the large-scale traveling ionospheric disturbances using SuperDARN ground backscatter	Alexey Oinats
10:00-10:20	Direct observations of polar cap patches segmented from the tongue of ionization	Qinghe Zhang

10:20-10:40 Coffee Break

11:30-12:30 Lunch (Provided, First (Ground) floor Restaurant of the Hotel)

14:00: Sightseeing in Shanghai (including provided dinner) by Bus, meet at the lobby.

Ionospheric Irregularities/ Interhemispheric Studies/Neutral Processes

Thursday, May 31, 0900-1040

Room: Hengsheng Functionroom

Chairperson: Kjellmar Oksavik

Time	Title	Speaker
09:00-09:20	X-mode modification of the instability threshold for generation of field aligned irregularities in heating experiments	William Bristow
09:20-09:40	Observations of zonally-moving MSTIDs with the Hokkaido SuperDARN radar and TEC GPS receivers	Alexander V Koustov
09:40-10:00	Investigation of low-latitude ionospheric field-aligned irregularities using the Sanya VHF radar	Guozhu Li
10:00-10:20	Statistics and characteristics of mid-latitude travelling ionospheric disturbances observed by SuperDARN	Adrian Grocott
10:20-10:40	Medium Scale Traveling Ionospheric Disturbances (MSTIDs) Observed by Mid-latitude SuperDARN Radars	Nathaniel Frissell

10:40-11:00 Coffee Break



Subauroral Processes

Thursday, May 31, 1100-1200

Room: Hengsheng Functionroom

Chairperson: Alexander Koustov

Time	Title	Speaker
11:00-11:20	A SuperDARN Voyage to the Subauroral Ionosphere	Raymond Greenwald
11:20-11:40	Characterization of quiet-time mid-latitude ionospheric backscatter observed by SuperDARN radars	Sebastien de Larquier
11:40-12:00	Study of disturbance dynamo effects on mid-latitude ionospheric convection with the SuperDARN Hokkaido radar	Nozomu Nishitani

12:00-13:30 Lunch (Provided, First (Ground) floor Restaurant of the Hotel)

Subauroral Processes/ Auroral Zone Processes

Thursday, May 31, 1330-1510

Room: Hengsheng Functionroom

Chairperson: Lisa Baddeley

Time	Title	Speaker
13:30-13:50	Dynamics of Sub-Auroral Polarization Streams observed by the SuperDARN Hokkaido radar during the March 2012 geomagnetic storm	Nozomu Nishitani
13:50-14:10	Observations of decameter scatter associated with the mid-latitude ionospheric trough	Elsayed R. Talaat
14:10-14:30	Evolution of negative SI-induced ionospheric flows observed by SuperDARN King Salmon HF radar	Tomoaki Hori
14:30-14:50	Impact of plasma convection on auroral morphology	Yongliang Zhang
14:50-15:10	The Substorm Current Wedge and Partial Ring Current: A Synthesis based on the Stretched-Field-Line Geometry of the Central Plasmasheet	Geroge Sofko

15:10-15:30 Coffee Break

**Convection Studies****Thursday, May 31, 1510-1650****Room: Hengsheng Functionroom****Chairperson: Robert Fear**

Time	Title	Speaker
15:30-15:50	Impact of Mid-Latitude Radars on Statistical Convection Patterns	Simon Shepherd
15:50-16:10	Small-scale Electric Field Variability in the High-latitude Ionospheres	Simon Shepherd
16:10-16:30	Electric field and currents associated with the Region-2 field-aligned currents at auroral-to-equatorial latitudes during substorms	Takashi Kikuchi
16:30-16:50	Simultaneous optical and SuperDARN HF radar observations of dayside shock aurora	Jianjun Liu
16:50-17:10	Comparison of Rankin Inlet Doppler Velocities with the APL Statistical Convection Models	Alexander V Koustov

18:00 Banquet (Chaoyang Hall at the second floor of the hotel)**Convection Studies/ Cusp/Polar Cap Processes****Friday, June 1, 0900-1020****Room: Hengsheng Functionroom****Chairperson: Qinghe Zhang**

Time	Title	Speaker
09:00-09:20	A Comparison of Geomagnetic Storm and Quiet Time Periods Seen in Superposed Latitude-Velocity-Time Plots: Some Initial Results from Case Studies	James Hutchinson
09:20-09:40	The Importance of Viscous Interactions on Ionospheric Convection via Comparisons of Open-Closed Boundaries (OCBs) and Convection Reversal Boundaries (CRBs)	James Hutchinson
09:40-10:00	Index of Refraction Measurements in the Polar Cap Using the McMurdo Radar	Jeffrey Spaleta
10:00-10:20	High latitude observations of magnetotail plasma-sheet plasma in conjunction with transpolar arcs	Robert Fear

10:20-10:40 Coffee Break



Working Group and PI Reports

Friday, June 1, 1040-1230

Room: Hengsheng Functionroom

Chairperson: John M. Ruohoniemi

Time	Title	Speaker
10:40-11:00	SuperDARN Software	
11:00-11:20	Data Collection and Distribution Report (June 2011 to May 2012)	
11:20-11:40	SuperDARN 2013	
11:40-12:00	Spacecraft working group report	Robert Fear
12:00-12:30	PI Report	Mark Lester

12:30-13:30 Lunch (Provided, First (Ground) floor Restaurant of the Hotel)