

Preliminary program

Sunday 01 June

16:00-18:30 Registration

18:30-21:00 Ice-breaker

Monday 02 June

01 Status reports Convenor: P. Dyson

09:00-10:00 *M. Lester*

Radar Status Overview

10:00-10:10 *E. Amata*

Report on the Dome C radars status

10:10-10:20 *C. Hanuise*

STATUS OF THE FRENCH SD RADARS

10:20-10:50

Tea-break

10:50-11:00 *R. J. Barnes*

Software Status Report

11:00-11:10 *J. Wild*

The THEMIS and CLUSTER satellite missions:
status, operational planning and opportunities for
collaboration

02 Data analysis and new techniques Convenors: C. Waters & J. Whittington

11:10-11:30 *R. T. Parris, W. A. Bristow, S. Shuxiang* First Results of Imaging, Super Stereo, and Other Upgrades on the Kodiak Radar

11:30-11:50 *P. V. Ponomarenko, C. L. Waters, and F. W. Menk* Recovering ionospheric velocities from SuperDARN returns contaminated by ground/sea scatter

11:50-12:10 *R. Greenwood, M. Parkinson, and P. Dyson* Propagation mode and scatter type identification of SuperDARN echoes using high Doppler resolution spectral analysis

12:30-13:30

Lunch

13:30-13:50 *T. K. Yeoman, G. Chisham, L. J. Baddeley, R. S. Dhillon, T. J. T. Karhunen, T. R. Robinson, A. Senior, and D. M. Wright* Assessing the accuracy of the new Chisham et al. SuperDARN virtual height model in Mapping ionospheric backscatter

13:50-14:10 *A. V. Koustov, J.-P. St-Maurice, G.J. Sofko, D. Andre, J. W. McDougall, M. R. Hairston, R. A. Fiori , and* Three way validation of Rankin velocity measurements: Saskatoon radar, Resolute CADI and DMSP

E.E. Kadochnikov

- 14:10-14:30 *P. V. Ponomarenko, J.-P. St-Maurice, and C. L. Waters* Effects of non-unity refractive index on SuperDARN velocity estimates
- 14:30-14:50 *R. Gillies, G. Hussey, G. Sofko, J.-P. St-Maurice, and P. Ponomarenko* Estimating index of refraction in the scattering region using SuperDARN angle of arrival measurements
- 14:50-15:20 Tea-break
- 15:20-15:40 *J. Spaleta, W. Bristow, R. T. Parris, M. Balaji, and S. Watari* Enhanced Line of Sight Velocity Analysis Using an Aperiodic Pulse Sequence on the Kodiak and King Salmon Radars.
- 15:40-16:00 *A. S. Yukimatu, K. Nishimura, Y. Ogawa, M. Tsutsumi, N. Sato, M. Rietveld, D. M. Wright, T. K. Yeoman, T. Robinson, and M. Lester* Range imaging by single pulse FDI - heater induced FAI observed by SuperDARN and EISCAT
- 16:00-16:20 *J. D. Borderick and T. K. Yeoman* Double Pulse Operations with SuperDARN
- 16:20-16:40 *E. Mravlag* An Investigation of the Noise as Recorded by the SANAe SHARE Radar
- 16:40-19:00 Dinner (own arrangement)
- 19:00-21:00 Workgroup/PI meetings

Tuesday 03 June

03 Special Convenor: K. Baker

- 09:00-09:20 *C. Hanuise* Early Years of HF radars studies of the ionosphere
- 09:20-09:40 *R. A. Greenwald* Memories of Jean-Paul Villain and his contributions to SuperDARN, STARE, and ionospheric radar research
- 09:40-10:00 *M. Lester and S. Milan* Observations of E-region scatter with the Iceland SuperDARN radars
- 10:00-10:20 *J.-P. St-Maurice* Jean-Paul Villain's impact on my SuperDARN related research.
- 10:20-10:50 Tea-break

04 Polar cap/auroral processes Convenor: M. Sciffer

- 10:50-11:10 *A. Grocott, M. Lester, S. E.* Ionospheric convection signatures associated with

- Milan, T. K. Yeoman, M. L. Parkinson, C. R. Down, P. L. Dyson* magnetotail flux ropes
- 11:10-11:30 *K. Hosokawa, A. Kadokura, N. Sato, S. E. Milan, M. Lester, G. Bjornsson, and T. Saemundsson* Electric field oscillation behind pulsating aurora
- 11:30-11:50 *A. C. Kellerman and R. A. Makarevich* On the relationship between auroral absorption, electrojet currents and plasma convection
- 11:50-12:10 *G. Sofko, M. Watanabe, Xi Yan, D. Andre, J.-P. St.Maurice, K. McWilliams, A. Koustov, and G. Hussey* Polar Cap Dynamic Structure seen using full 2-radar PolarDARN Data
- 12:30-13:30 Transportation to Blackbutt reserve
- 13:30-16:30 Picnic at Blackbutt reserve (BBQ lunch, Volleyball World Cup, wildlife encounters, sunset)
- 16:30-17:00 Transportation to hotels
- 17:00-19:00 Dinner (own arrangement)
- 19:00-21:00 Workgroup/PI meetings

Wednesday 04 June

Invited talk

- 09:00-09:30 *Phil Wilkinson* IPS - now and in the future
(IPS Radio and Space Services, Australia)

05 Convection Convenor: M. Parkinson

- 09:30-09:50 *C. R. Down, M. L. Parkinson, A. Grocott, H. Ye, J. C. Devlin and P. L. Dyson* High spatial resolution observations of ionospheric convection in the midnight sector during the growth of a geomagnetic storm
- 09:50-10:10 *K.A. McWilliams, J.B. Pfeifer, and R.L. McPherron* Characteristics of Steady Magnetospheric Convection: A SuperDARN Perspective
- 10:10-10:40 Tea-break

10:40-11:00	<i>F.D. Wilder, C.R. Clauer, and <u>J.B.H. Baker</u></i>	Reverse Convection Potential Saturation During Northward IMF
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06 Sub-auroral and mid-latitude processes Convenor: F. Menk

11:00-11:20	<i><u>A. Koustov</u>, N. Nishitani, Y. Ebihara, T. Kikuchi, M. R. Hairston, and D. Andre</i>	Subauroral polarization streams: Observations with the Hokkaido and King Salmon SuperDARN radars and modeling
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11:20-11:40	<i><u>N. Nishitani</u>, T. Ogawa, T. Kikuchi, H. Tsutsui, and A. Ichihara</i>	Statistical results from the 1-year observation of the Doppler velocities by the SuperDARN Hokkaido radar
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11:40-12:00	<i>M. Kartalev, <u>E. Amata</u>, I. Coco, V. Keremidarska</i>	Interplanetary electric field penetration to the equatorial ionosphere
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12:00-12:20	<i><u>J. M. Ruohoniemi</u>, R. A. Greenwald, J. B. H. Baker, R. J. Barnes, C.R. Clauer, M. Lester, E. C. Thomas, J. D. Thornhill, S. Milan, and T. K. Yeoman</i>	First Results from the Blackstone Radar
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12:10-13:30		Lunch-break
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13:30-13:50	<i><u>N. Nishitani</u>, T. Kikuchi, T. Ogawa, S. Watari, and T. Hori</i>	SuperDARN observation of equatorward progression of dayside merging flows during a geomagnetic storm
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13:50-14:10	<i><u>V. V. Kumar</u>, M. L. Parkinson, P. L. Dyson and G. B Burns</i>	Perturbations in F-region vertical drift associated with cloud-to-ground lightning strokes detected in proximity to the southern mid-latitude station at Bundoora, Australia
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07 Large-scale wave-like processes Convenors: B. Fraser and P. Ponomarenko

14:10-14:30	<i><u>F. W. Menk</u> and C. L. Waters</i>	Properties of Ionospheric Doppler Oscillations Driven by Downgoing ULF Waves
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14:30-14:50	<i><u>T. K. Yeoman</u>, L. J. Baddeley, R. S. Dhillon, T. R. Robinson, and D. M. Wright</i>	Bistatic observations of large and small scale ULF waves in SPEAR-induced HF coherent backscatter
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14:50-15:20		Tea-break
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15:20-15:40	<i><u>J.B.H. Baker</u>, J.M. Ruohoniemi, R.A. Greenwald,</i>	Observations of Pi2 pulsations at substorm onset with the SuperDARN THEMIS mode
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*I.J. Rae, L. Kepko, M. Lester,
and T.K. Yeoman*

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| 15:40-16:00 | <i>T. Ogawa, N. Nishitani, Y. Otsuka, K. Shiokawa, and T. Tsugawa</i> | SuperDARN Hokkaido radar observations of nighttime medium-scale traveling ionospheric disturbances and sporadic E irregularities |
| 16:00-16:20 | <i>S. C. Gane, D. M. Wright, T. Raita</i> | The Effects of Pulsed Ionospheric Flows on Electromagnetic Ion Cyclotron Wave Behaviour |
| 16:20-16:40 | <i>E. R. Talaat, J. M. Ruohoniemi, and R. Greenwald</i> | Mesopause waves and tides as observed by the SuperDARN network |
| 16:40-17:00 | <i>K. J. W. Lynn</i> | Sources of ionospheric variability |
| 17:00-19:00 | Dinner (own arrangement) | |
| 19:00-21:00 | Poster session | |

Thursday 05 June

Invited talk

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| 09:00-09:30 | <i>Iain Reid</i>
(The University of Adelaide) | Recent Improvements in Radar Techniques for Investigating the Atmosphere |
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08 Small-scale plasma turbulence and multi-scale processes Convenor: R. Makarevich

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| 09:30-09:50 | <i>G. Chisham, M. P. Freeman, and G. A. Abel</i> | The non-Gaussian nature of ionospheric vorticity fluctuations |
| 09:50-10:10 | <i>M. L. Parkinson</i> | Solar cycle variability in solar wind turbulence, magnetospheric currents, and ionospheric electric fields |
| 10:10-10:40 | Tea-break | |
| 10:40-11:00 | <i>G. A. Abel, M. P. Freeman, and G. Chisham</i> | Multi-fractal turbulence in the ionosphere - IMF clock angle control of intermittency |
| 11:00-11:20 | <i>G. Chisham, M. P. Freeman, and G. A. Abel</i> | Statistical field-aligned current maps determined from SuperDARN HF radar measurements of ionospheric vorticity |
| 11:20-11:40 | <i>B. A. Carter and R. A. Makarevich</i> | E-region decameter-scale plasma waves observed by the dual TIGER HF radars |
| 11:40-12:00 | <i>H. Vickers, T. Robinson, R. Dhillon</i> | Temperature Dependence of Artificial Field-Aligned Irregularities |

12:00-12:20 *J.D. Gorin, A.V. Koustov* E region echo velocity and ExB as inferred from Stokkseyri observations

12:30-13:30 Lunch

13:30 sharp! Bus departs for the excursion (Mt Sugar Loaf, wine-tasting at McGuigan Estate)

18:30 – 21:00 Conference dinner at Hope Estate, Pokolbin

22:30-23:00 Returning to hotels

Friday 06 June

09 Reconnection, substorms Convenor: S. Morley

09:00-09:20 *R. A. Greenwald, J. M. Ruohoniemi, J. B. Baker, and M. Lester* Substorm impacts on inner magnetosphere convection

09:20-09:40 *R. C. Fear, S. E. Milan, E. A. Lucek, and A. N. Fazakerley* Cluster and SuperDARN observations of flux transfer events from the Cluster 10,000 km season

09:40-10:00 *D. Ambrosino, E. Amata, F.M. Marcucci, and I. Coco* Comparison of SuperDARN observations with ionospheric projection of the reconnection line as calculated through the Cooling model.

10:00-10:20 *Q.-H. Zhang, H. Q. Hu, R. Y. Liu, M. W. Dunlop, and M. Lester* Simultaneous tracking of reconnected flux tubes: Cluster and conjugate SuperDARN observations on 1 April 2004

10:20-10:50 Tea-break

10:50-11:10 *J.A. Wild and A. Grocott* The influence of magnetospheric substorms on SuperDARN radar backscatter

10 Workgroup reports Convenor:

11:10-11:20 *G. Chisham and T.K. Yeoman* Scheduling working group report

11:20-11:30 *D. Andre and R. Barnes* Data Distribution Report

11:30-12:00 – workshop's wrap-up (*M. Lester, C. Waters, C. Hanuise*)

11 Posters (Wednesday 04 June) Convenor:

<u>G. Blanchard</u> and K. Baker	Use of the Lomb Periodogram to Analyze SuperDARN Backscatter Spectrum
<u>Y. V. Bogdanova</u> , C. J. Owen, M. W. Dunlop, J. A. Wild, J. A. Davies, A. D. Lahiff, M. G. G. T. Taylor, A. N. Fazakerley, I. Dandouras, C. M. Carr, E. A. Lucek, and H. Rème	Formation of the Low-Latitude Boundary Layer and cusp under the northward IMF: simultaneous observations by Cluster and Double Star
<u>E. Custovic</u> , J. Devlin, J. Whittington, and H. Ye	Analysis of Wallops Island Style Antenna for use in TIGER-3 Radar
J. Devlin, <u>J. Whittington</u> , D. Elton, E. Custovic, and H. Ye	Proposed TIGER-3 Radar Architecture
A. Grocott, J.A. Wild, S.E. Milan, <u>T.K. Yeoman</u>	The influence of magnetospheric substorms on high-latitude ionospheric convection
<u>T. A. Kane</u> and R. A. Makarevich	SuperDARN observations of storm-time plasma dynamics: Ionospheric backscatter occurrence and convection response to Storm Sudden Commencement
<u>A. Koustov</u> , K. Hosokawa, N. Nishitani, T. Ogawa, and K. Shiokawa	Rankin Inlet PolarDARN radar observations of duskward moving Sun-aligned optical forms
R. A. Makarevich	SuperDARN observations of high-velocity E-region echoes from the eastward auroral electrojet
A. Milillo, F.M. Marcucci, and <u>E. Amata</u>	
M. J. Parsons, E. C. Thomas, and <u>M. Lester</u>	Numerical modelling of Blackstone radar antenna array
P. Sutcliffe	Observations of Pc3 band pulsations in the polar cusp region by CHAMP
<u>J.A. Wild</u> , E.E. Woodfield, M. Lester, E. Donovan, and E.C. Thomas	First results from the Rainbow auroral imager at Pykkvibaer, Iceland
Sebastian	To be added!