

Bibliography of AMISR-related Publications

2009

- Chau, J.L., F.R. Galindo, C.J. Heinselman, and M.J. Nicolls, "Meteor-head echo observations using an antenna compression approach with the 450 MHz Poker Flat Incoherent Scatter Radar," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.08.007, 2009.
- Fentzke, J.T., D. Janches, and J.J. Sparks, "Latitudinal and season variability of the micrometeor input function: A study using model predictions and observations from Arecibo and PFISR," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.07.015.
- Hysell, D.L., G. Michhue, M.J. Nicolls, C.J. Heinselman, and M.F. Larsen, "Assessing auroral electric field variance with coherent and incoherent scatter radar," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.10.013, 2009.
- Janches, D., D.C. Fritts, M.J. Nicolls, and C.J. Heinselman, "Observations of *D*-region structure and atmospheric tides with PFISR during active aurora," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.08.015, 2009.
- Jones, S.L., M.R. Lessard, P.A. Fernandes, D. Lummerzheim, J.L. Semeter, C.J. Heinselman, K.A. Lynch, R.G. Michell, P.M. Kintner, H.C. Stenbaek-Nielsen, and K. Asamura, "PFISR and ROPA observations of pulsating aurora," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.10.004, 2009.
- Kelly, J., and C. Heinselman, "Initial results from Poker Flat incoherent scatter radar (PFISR)," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.01.009, 2009.
- Kosch, M.J., B. Gustavsson, C. Heinselman, T. Pedersen, M.T. Rietveld, J. Spaleta, A. Wong, W. Wang, C. Mutiso, B. Bristow, and J. Hughes, "First incoherent scatter radar observations of ionospheric heating on the second electron gyro-harmonic," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.08.007, 2009.
- Lyons, L.R., H.-J. Kim, X. Xing, S. Zou, D.-Y. Lee, C.J. Heinselman, M.J. Nicolls, V. Angelopoulos, D. Larson, J. McFadden, A. Runov, and K.-H. Fornacon, "Evidence that solar wind fluctuations substantially affect global convection and substorm occurrence," *J. Geophys. Res.*, **submitted**, 2009.
- Lyons, L.R., S. Zou, C.J. Heinselman, M.J. Nicolls, and P.C. Anderson, "Poker Flat radar observations of the magnetosphere-ionosphere coupling electrodynamic of the earthward penetrating plasma sheet following convection enhancements," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.09.025, 2009.
- Michell, R.G., K.A. Lynch, C.J. Heinselman, and H.C. Stenbaek-Nielsen, "High time resolution PFISR and optical observations of naturally enhanced ion acoustic lines," *Ann. Geophys.*, 27, 1457–1467, 2009.
- Nicolls, M.J., M.C. Kelley, R.H. Varney, and C.J. Heinselman, "Spectral observations of polar mesospheric summer echoes at 33 cm (450 MHz) with the Poker Flat Incoherent Scatter Radar," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.04.019, 2009.

- Richards, P.G., M.J. Nicolls, C.J. Heinselman, J.J. Sojka, J.M. Holt, and R.R. Meier, "Measured and modeled ionospheric densities, temperatures, and winds during the IPY," *J. Geophys. Res.*, **accepted**, 2009.
- Roy, A., S.J. Briczinski, J.F. Doherty, and J.D. Mathews, "Genetic-algorithm-based parameter estimation technique for fragmenting radar meteor head echoes," *IEEE Geosci. Remote Sens. Lett.*, doi:10.1109/LGRS.2009.2013878, 2009.
- Sangalli, L., D.J. Knudsen, M.F. Larsen, T. Zhan, R.F. Pfaff, and D. Rowland, "Rocket-based measurements of ion velocity, neutral wind, and electric field in the collisional transition region of the auroral ionosphere," *J. Geophys. Res.*, 114, A04306, doi:10.1029/2008JA013757, 2009.
- Semeter, J., T. Butler, C. Heinselman, M. Nicolls, J. Kelly, and D. Hampton, "Volumetric imaging of the auroral ionosphere: Initial results from PFISR," *J. Atmos. Solar-Terr. Phys.*, 71, 738–743, doi:10.1016/j.jastp.2008.08.014, 2009.
- Sojka, J.J., R.L. McPherron, A.P. van Eyken, M.J. Nicolls, C.J. Heinselman, and J.D. Kelly, "Observations of the ionosphere heated during passage of solar coronal hole fast streams," *Geophys. Res. Lett.*, doi:10.1029/2009GL039064, 2009.
- Sojka, J.J., M.J. Nicolls, C.J. Heinselman, and J.D. Kelly, "The PFISR IPY observations of ionospheric climate and weather," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.01.001, 2009.
- Sparks, J.J., and D. Janches, "Latitudinal dependence of the variability of the micrometeor altitude distribution," *Geophys. Res. Lett.*, Vol. 36, L12105, 2009.
- Sparks, J.J., D. Janches, M.J. Nicolls, and C.J. Heinselman, "Seasonal and diurnal variability of the meteor flux at high latitudes observed using PFISR," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.08.009, 2009.
- Taylor, M.J., Y. Zhao, P.-D. Pautet, M.J. Nicolls, R.L. Collins, J. Baker-Tvedtness, C.D. Burton, B. Thurairajah, J. Reimuller, R.H. Varney, C.J. Heinselman, and K. Mizutani, "Coordinated optical and radar image measurements of noctilucent clouds and polar mesospheric summer echoes," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.12.005, 2009.
- Vadas, S.L. and M.J. Nicolls, "Temporal evolution of neutral, thermospheric winds and plasma response using PFISR measurements of gravity waves," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.01.011, 2009.
- Varney, R.H., M.J. Nicolls, C.J. Heinselman, and M.C. Kelley, "Observations of polar mesospheric summer echoes using PFISR during the summer of 2007," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.01.002, Vol. 71, p.470–476, 2009.
- Zou, S., L.R. Lyons, M.J. Nicolls, and C.J. Heinselman, "PFISR observations of strong azimuthal flow bursts in the ionosphere and their relation to nightside aurora," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.06.015, 2009.
- Zou S., L.R. Lyons, M.J. Nicolls, C.J. Heinselman, and S.B. Mende, "Nightside ionospheric electrodynamics associated with substorms: PFISR and THEMIS ASI observations," *J. Geophys. Res.*, **accepted**, 2009.

2008

- Fentzke, J.T., D. Janches, and J.J. Sparks, "Latitudinal and seasonal variability of the micrometeor input function: A study using model predictions, Arecibo, and PFISR observations," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2008.07.015, 2008.
- Gustavsson, B., M. Kosch, A. Wong, T. Pedersen, C. Heinselman, C. Mutiso, B. Bristow, J. Hughes and W. Wang, "First estimates of volume distribution of HF-pump enhanced emissions at 6300 and 5577 Å: a comparison between observations and theory," *Ann. Geophys.*, 26, 3999-4012, 2008.
- Heinselman, C.J., M.J. Nicolls, "A Bayesian approach to electric field and *E*-region neutral wind estimation with the Poker Flat Advanced Modular Incoherent Scatter Radar," *Radio Science*, 43, RS5013, doi:10.1029/2007RS003805, 2008.
- Hysell, D.L., G. Michhue, M.F. Larsen, R. Pfaff, M.J. Nicolls, C.J. Heinselman, and H. Bahcivan, "Imaging radar observations of Farley Buneman waves during the JOULE II experiment," *Ann. Geophys.*, 26, 1837–1850, 2008.
- Kelley, M.C., R.A. Cuevas, and D.L. Hysell, "Radar scatter from equatorial electrojet waves: An explanation for the constancy of the Type I Doppler shift with zenith angle," *Geophys. Res. Lett.*, 35, L04106, doi:10.1029/2007GL032848, 2008.
- Michell, R.G., K.A. Lynch, C.J. Heinselman, and H.C. Stenbaek-Nielsen, "PFISR nightside observations of naturally enhanced ion acoustic lines and their relation to boundary auroral features," *Ann. Geophys.*, 26, 3623–3639, 2008.
- Vadas, S.L., M.J. Nicolls, "Using PFISR measurements and gravity wave dissipative theory to determine the neutral, background thermospheric winds," *Geophys. Res. Lett.*, 35, L02105, doi:10.1029/2007GL031522, 2008.

2007

- Hysell, D.L., J. Drexler, E.B. Shume, J.L. Chau, D.E. Scipion, M. Vlasov, R. Cuevas, C. Heinselman, "Combined radar observations of equatorial electrojet irregularities at Jicamarca," *Ann. Geophys.*, 25, pp. 457-473, 2007.
- Kosch, M.J., T. Pedersen, E. Mishin, S. Oyama, J. Hughes, A. Senior, B. Watkins, B. Bristow, "Coordinated optical and radar observations of ionospheric pumping for a frequency pass through the second electron gyroharmonic at HAARP," *J. Geophys. Res.*, 112, A06325, doi:10.1029/2006JA012146, 2007.
- Kosch, M.J., T. Pedersen, E. Mishin, M. Starks, E. Gerken-Kendall, D. Sentman, S. Oyama, B. Watkins, "Temporal evolution of pump beam self-focusing at the High-Frequency Active Auroral Research Program," *J. Geophys. Res.*, 112, A08304, doi:10.1029/2007JA012264, 2007.
- Mathews, J.D., S.J. Briczinski, D.D. Meisel, C.J. Heinselman, "Radio and meteor science outcomes from comparisons of meteor radar observations at AMISR Poker Flat, Sondrestrom, and Arecibo," *Earth Moon Planet*, doi:10.1007/s11038-007-9168-0, 2007.

Nicolls, M.J., C.J. Heinselman, E.A. Hope, S. Ranjan, M.C. Kelley, J.D. Kelly, "Imaging of polar mesosphere summer echoes with the 450 MHz Poker Flat Advanced Modular Incoherent Scatter Radar," *Geophys. Res. Lett.*, 34, L20102, doi:10.1029/2007GL031476, 2007.

Nicolls, M.J., C.J. Heinselman, "Three-dimensional measurements of traveling ionospheric disturbances with the Poker Flat Incoherent Scatter Radar," *Geophys. Res. Lett.*, 34, L21104, doi:10.1029/2007GL031506, 2007.

2006

Oyama, S., B.J. Watkins, F.T. Djuth, M.J. Kosch, P.A. Bernhardt, C.J. Heinselman, "Persistent enhancement of the HF pump-induced plasma line measured with a UHF diagnostic radar at HAARP," *J. Geophys. Res.*, 111, A06309, doi:10.1029/2005JA011363, 2006.