

## Refereed EFW publications 2014

Alm, L., G. T. Marklund, and T. Karlsson, In situ observations of density cavities extending above the auro- ral acceleration region, *J. Geophys. Res. Space Physics*, 119, 5286–5294, doi:10.1002/2014JA019799, 2014.

Balikhin, M. A., A. Runov, S. N. Walker, M. Gedalin, I. Dandouras, Y. Hobara, and A. Fazakerley, On the fine structure of dipolarization fronts, *J. Geophys. Res. Space Physics*, 119, 6367–6385, doi:10.1002/2014JA019908, 2014.

Birn, J., and M. Hesse, The sub-storm current wedge: Further insights from MHD simulations, *J. Geophys. Res. Space Physics*, 119, 3503–3513, doi:10.1002/2014JA019863, 2014.

Dai, L., J. R. Wygant, C. A. Cattell, S. Thaller, K. Kersten, A. Breneman, and X. Tang, Cluster obser- vations of fast magnetosonic waves in the heliosphere current sheet, *Geophys. Res. Lett.*, 41, 1398–1405, doi:10.1002/2014GL059223, 2014.

Dorville, N., G. Belmont, L. Rezeau, N. Aunai, and A. Retinò, BV technique for investigating 1-D interfaces, *J. Geophys. Res. Space Physics*, 119, 1709–1720, doi:10.1002/2013JA018926, 2014.

Dorville, N., G. Belmont, L. Rezeau, R. Grappin, and A. Retinò, Rotational/compressional nature of the magnetopause: Application of the BV technique on a magne- topause case study, *J. Geophys. Res. Space Physics*, 119, 1898–1908, doi:10.1002/2013JA018927, 2014.

Doss, N., Fazakerley, A.N., Mihaljčić, B., Lahiff, A.D., Wilson, R.J., Kataria, D., Rozum, I., Watson, G., and Bogdanova, Y., In-flight calibration of the Cluster PEACE sensors, *Geosci. Instrum. Method. Data Syst.*, 3, 59-70, doi:10.5194/gi-3-59-2014, 2014.

Duan, A.Y., J.B. Cao, M. Dunlop, and Z.Q. Wang, Energetic electron bursts in the plasma sheet and their relation with BBFs, *J. Geophys. Res. Space Physics*, 119, doi:10.1002/2014JA020169, 2014.

Fujimoto, K., Wave activities in separatrix regions of magnetic reconnection, *Geophys. Res. Lett.*, 41, 2721–2728, doi:10.1002/2014GL059893, 2014.

**Graham, D. B., Yu. V. Khotyaintsev, A. Vaivads, M. André,** and A. N. Fazakerley, Electron dynamics in the diffusion region of asymmetric magnetic reconnection, *Phys. Rev. Lett.* 112, 215004, doi:10.1103/PhysRevLett.112.215004, 2014.

Grison, B., C. P. Escoubet, O. Santolík, N. Cornilleau-Wehrin, and **Y. Khotyaintsev**, Wave number determination of Pc 1–2 mantle waves considering He<sup>++</sup> ions: A Cluster study, *J. Geophys. Res. Space Physics*, 119, 7601–7614, doi:10.1002/ 2013JA019719, 2014.

Greco, A., A. Artemyev, and G. Zimbardo, Proton acceleration at two-dimensional dipolarization fronts in the magnetotail, *J. Geophys. Res. Space Physics*, 119, 8929–

8941, doi:10.1002/2014JA020421, 2014.

Gunell, H., G. Stenberg Wieser, **M. Mella**, R. Maggiolo, H. Nilsson, F. Darrouzet, M. Hamrin, T. Karlsson, N. Brenning, J. De Keyser, **M. André**, and I. Dandouras, Waves in high-speed plasmoids in the magnetosheath and at the magnetopause, *Ann. Geophys.*, 32, 991–1009, doi:10.5194/angeo-32-991-2014, 2014.

Hamrin, M., T. Pitkänen, P. Norqvist, T. Karlsson, H. Nilsson, **M. André**, **S. Buchert**, **A. Vaivads**, O. Marghitu, B. Klecker, L. M. Kistler, and I. Dandouras, Evidence for the braking of flow bursts as they propagate toward the Earth, *J. Geophys. Res. Space Physics*, 119, doi:10.1002/2014JA020285, 2014.

Hwang, K.-J., M. L. Goldstein, A. F.-Vinas, D. Schriver, and M. Ashour-Abdalla, Wave-particle interactions during a dipolarization front event, *J. Geophys. Res. Space Physics*, 119, 2484–2493, doi:10.1002/2013JA019259, 2014.

Hwang, K.-J., M. L. Goldstein, T. E. Moore, B. M. Walsh, D. G. Baishev, A. V. Moiseyev, B. M. Shevtsov, and K. Yumoto, A tailward moving current sheet normal magnetic field front followed by an earthward moving dipolarization front, *J. Geophys. Res. Space Physics*, 119, 5316–5327, doi:10.1002/2013JA019657, 2014.

**Khotyaintsev, Yu V.**, P.-A. Lindqvist, C. M. Cully, **A. I. Eriksson**, and **M. André**, In-flight calibration of double-probe electric field measurements on Cluster, *Geosci. Instrum. Method. Data Syst.*, 3, 143-151, doi:10.5194/gi-3-143-2014, 2014.

Lacombe, C., O. Alexandrova, L. Matteini, O. Santolík, N. Cornilleau-Wehrin, A. Mangeney, Y. de Conchy, and M. Maksimovic, Whistler mode waves and the electron heat flux in the solar wind: cluster observations, *Astrophysical Journal*, 796 5, doi:10.1088/0004-637X/796/1/5, 2014.

Li, B., G. Marklund, L. Alm, T. Karlsson, P.-A. Lindqvist, and A. Masson, Statistical altitude distribution of Cluster auroral electric fields, indicating mainly quasi-static acceleration below 2.8 RE and Alfvénic above, *J. Geophys. Res. Space Physics*, 119, 8984–8991, doi:10.1002/2014JA020225, 2014.

Lin, R.-L., et al., Testing linear theory of EMIC waves in the inner magnetosphere: Cluster observations, *J. Geophys. Res. Space Physics*, 119, 1004–1027, doi:10.1002/2013JA019541, 2014.

Robert, P., Cornilleau-Wehrin, N., Piberne, R., de Conchy, Y., Lacombe, C., Bouzid, V., Grison, B., Alison, D., and Canu, P., CLUSTER–STAFF search coil magnetometer calibration – comparisons with FGM, *Geosci. Instrum. Method. Data Syst.*, 3, 153-177, doi:10.5194/gi-3-153-2014, 2014.

Sun, W.-J., S. Fu, G. K. Parks, Z. Pu, Q.-G. Zong, J. Liu, Z. Yao, H. Fu, and Q. Shi, Electric fields associated with dipolarization fronts, *J. Geophys. Res. Space Physics*, 119, 5272–5278, doi:10.1002/2014JA020045, 2014.

Teh, W.-L., R. Nakamura, H. Karimabadi, W. Baumjohann and T.L. Zhang, Correlation of Core Field Polarity of Magnetotail Flux Ropes with the IMF By:

Reconnection Guide Field Dependency, *J. Geophys. Res. Space Physics*, doi:10.1002/2013JA019454, 2014.

Varsani, A., C. J. Owen, A. N. Fazakerley, C. Forsyth, A. P. Walsh, **M. André**, I. Dandouras, and C. M. Carr, Cluster observations of the substructure of a flux transfer event: analysis of high-time-resolution particle data, *Ann. Geophys.*, 32, 1093–1117, doi:10.5194/angeo-32-1093-2014, 2014.

Vasko, I.Y., Artemyev, A.V., Petrukovich, A.A., Nakamura, R., and Zelenyi, L.M., The structure of strongly tilted current sheets in the Earth magnetotail, *Ann. Geophys.*, 32, 133-146, doi:10.5194/angeo-32-133-2014, 2014.

**Viberg, H., Yu. V. Khotyaintsev, A. Vaivads, M. André**, H. S. Fu and N. Cornilleau-Wehrin, Whistler waves at magnetotail depolarization fronts, *J. Geophys. Res. Space Physics*, 119, 2605–2611, doi:10.1002/2014JA019892, 2014.

Walsh, A.P., Haaland, S., Forsyth, C., Keesee, A.M., Kissinger, J., Li, K., Runov, A., Soucek, J., Walsh, B.M., Wing, S., and Taylor, M.G.G.T., Dawn–dusk asymmetries in the coupled solar wind–magnetosphere–ionosphere system: a review, *Ann. Geophys.*, 32, 705-737, doi:10.5194/angeo-32-705-2014, 2014.

Wang, R., Q. Lu, **Yu V. Khotyaintsev**, M. Volwerk, A. Du, R. Nakamura, W. D. Gonzalez, X. Sun, W. Baumjohann, X. Li, T. Zhang, A. N. Fazakerley, C. Huang, and M. Wu, Observation of double layer in the separatrix region during magnetic reconnection, *Geophys. Res. Lett.*, 41, 4851–4858, doi:10.1002/2014GL061157, 2014.

Wang, R., Nakamura, R., Zhang, T., Du, A., Baumjohann, W., Lu, Q., and Fazakerley, A.N., Evidence of transient reconnection in the outflow jet of primary reconnection site, *Ann. Geophys.*, 32, 239-248, doi:10.5194/angeo-32-239-2014, 2014.

Wang, T., J.-B. Cao, H. Fu, W. Liu, and M. Dunlop, Turbulence in the Earth's cusp region: The k-filtering analysis, *J. Geophys. Res. Space Phys.*, 119, doi:10.1002/2014JA01999, 2014.

Wang, Z.Q., J.-B. Cao, H. Rème, I. Dandouras, Y.D. Ma, Nonadiabatic acceleration of plasma sheet ions related to ion cyclotron waves, *Science China Technological Sciences*, 57,12, 2434-2440, doi:10.1007/s11431-014-5705-z, 2014.

Wilder, F. D., S. Eriksson, K. J. Trattner, P. A. Cassak, S.A. Fuselier, and B. Lybekk, Observation of a retreating x line and magnetic islands poleward of the cusp during northward interplanetary magnetic field conditions, *J. Geophys. Res. Space Phys.*, 119, doi:10.1002/2014JA020453, 2014.

Wing, S., J.R. Johnson, C.C. Chaston, M. Echim, C.P. Escoubet, B. Lavraud, C. Lemon, K. Nykyri, A. Otto, J. Raeder, C.-P. Wang, Review of Solar Wind Entry into and Transport Within the Plasma Sheet, *Space Sci. Rev.*, doi:10.1007/s11214-014-0108-9, 2014.

Zhou, M., X. Deng, R. Tang, Y. Pang, X. Xu, Z. Yuan, and S. Huang, Evidence of deflected super-Alfvénic electron jet in a reconnection region with weak guide field, *J. Geophys. Res. Space Physics*, 119, 1541–1548, doi:10.1002/2013JA019556, 2014.

Zhou, M., H. Li, X. Deng, S. Huang, Y. Pang, Z. Yuan, X. Xu, and R. Tang, Characteristic distribution and possible roles of waves around the lower hybrid frequency in the magnetotail reconnection region, *J. Geophys. Res. Space Physics*, 119, doi:10.1002/2014JA019978, 2014.

Zhou, M., B. Ni, S. Huang, X. Deng, M. Ashour-Abdalla, Y. Nishimura, Z. Yuan, Y. Pang, and H. Li, Observation of large-amplitude magnetosonic waves at dipolarization fronts, *J. Geophys. Res. Space Physics*, 119, doi:10.1002/2014JA019796, 2014.

## Published online 2014

Eastwood, J.P., H. Hietala, G. Toth, T.D. Phan and M. Fujimoto, What controls the structure and dynamics of Earth's magnetosphere? *Space Sci. Rev.*, 10.1007/s11214-014-0050-x, published online June 14, 2014.

Hesse, M., N. Aunai, J. Birn, P. Cassak, R.E. Denton, J.F. Drake, T. Gombosi, M. Hoshino, W. Matthaeus, D. Sibeck, S. Zenitani, Theory and Modeling for the Magnetospheric Multiscale Mission, *Space Sci. Rev.*, 10.1007/s11214-014-0078-y, published online October 2014.

Lindqvist, P.-A., G. Olsson, R.B. Torbert, B. King, M. Granoff, D. Rau, G. Needell, S. Turco, I. Dors, P. Beckman, J. Macri, C. Frost, J. Salwen, **A. Eriksson, L. Åhlén, Y.V. Khotyaintsev**, J. Porter, K. Lappalainen, R. E. Ergun, W. Wermeer and S. Tucker, The Spin-Plane Double Probe electric field instrument for MMS, *Space Sci. Rev.*, doi:10.1007/s11214-014-0116-9, published online 18 November 2014.

Torbert, R. B., C.T. Russell, W. Magnes, R. E. Ergun, P.-A. Lindqvist, O. LeContel, H. Vaith, J. Macri, S. Myers, D. Rau, J. Needell, B. King, M. Granoff, M. Chutter, I. Dors, G. Olsson, **Y. V. Khotyaintsev, A. Eriksson**, C. A. Kletzing, S. Bounds, B. Anderson, W. Baumjohann, M. Steller, K. Bromund, Guan Le, R. Nakamura, R. J. Strangeway, H. K. Leinweber, S. Tucker, J. Westfall, D. Fischer, F. Plaschke, J. Porter and K. Lappalainen, The FIELDS Instrument Suite on MMS: Scientific Objectives, Measurements, and Data Products, *Space Sci. Rev.*, doi:10.1007/s11214-014-0109-8, published online 19 November 2014.

Torkar, K., Nakamura, R., Tajmar, M., Scharlemann, C., Jeszenszky, H., Laky, G., Fremuth, G., Escoubet, C.P., Svenes, K., Active Spacecraft Potential Control Investigation, *Space Sci. Rev.*, 1-30, 10.1007/s11214-014-0049-3, published online May 30, 2014.

Zelenyi, L., A. Artemyev, A. Petrukovich, Properties of magnetic field fluctuations in the Earth's magnetotail and implications for the general problem of structure formation in hot plasmas, *Space Sci. Rev.*, 1-24, 0038-6308, doi:10.1007/s11214-014-0037-7, published online March 18, 2014.