

## **EFW Refereed papers 2011**

Agapitov, O., V. Krasnoselskikh, T. Dudok de Wit, **Y. Khotyaintsev**, J. S. Pickett, O. Santolík, and G. Rolland, Multispacecraft observations of chorus emissions as a tool for the plasma density fluctuations' remote sensing, *J. Geophys. Res.*, 116, A09222, doi:10.1029/2011JA016540, 2011.

Agapitov, O., V. Krasnoselskikh, **Y. V. Khotyaintsev**, and G. Rolland, A statistical study of the propagation characteristics of whistler waves observed by Cluster, *Geophys. Res. Lett.*, 38, L20103, doi:10.1029/2011GL049597, 2011.

Aunai, N., A. Retinò, G. Belmont, R. Smets, B. Lavraud, and **A. Vaivads**, The proton pressure tensor as a new proxy of the proton decoupling region in collisionless magnetic reconnection, *Ann. Geophys.*, 29, 1571-1579, 2011.

Barghouthi, I. A., Ghithan, S. H., and Nilsson, H.: A comparison study between observations and simulation results of Barghouthi model for O<sup>+</sup> and H<sup>+</sup> outflows in the polar wind, *Ann. Geophys.*, 29, 2061-2079, doi:10.5194/angeo-29-2061-2011, 2011.

Dai, L., J. R. Wygant, C. Cattell, J. Dombeck, S. Thaller, C. Mouikis, A. Balogh, and H. Rème, Cluster observations of surface waves in the ion jets from magnetotail reconnection, *J. Geophys. Res.*, 116, A12227, doi:10.1029/2011JA017004, 2011.

De Keyser, J., R. Maggiolo, M. Echim and I. Dandouras, Wave signatures and electrostatic phenomena above aurora: Cluster observations and modeling, *J. Geophys. Res.*, 116, A06224, doi:10.1029/2010JA016004, 2011.

Dimmock, A. P., M. A., Balikhin and Y. Hobara, Comparison of three methods for the estimation of cross-shock electric potential using Cluster data, *Ann. Geophys.*, 29, 815-822, doi:10.5194/angeo-29-815-2011, 2011.

**Fu, H. S., Y. V. Khotyaintsev, M. André and A. Vaivads**, Fermi and betatron acceleration of suprathermal electrons behind dipolarization fronts, *Geophys. Res. Lett.*, 38, L16104, doi:10.1029/2011GL048528, 2011.

Farrugia, C. J., Li-Jen Chen, R. B. Torbert, D. J. Southwood, S. W. H. Cowley, A. Vrblevskis, C. Mouikis, **A. Vaivads, M. André**, P. Décréau, H. Vaith, C. J. Owen, D. J. Sibeck, E. Lucek and C. W. Smith, "Crater" flux transfer events: Highroad to the X line?, *J. Geophys. Res.*, 116, A02204, doi:10.1029/2010JA015495, 2011.

Fujimoto, M., I. Shinohara and H. Kojima, Reconnection and waves: a review with a perspective, *Space Sci. Rev.*, 160:123–143 doi:10.1007/s11214-011-9807-7, 2011.

Fuselier, S. A. and W. S Lewis, Properties of near-Earth magnetic reconnection from in-situ observations, *Space Sci. Rev.*, 160:95–121 doi:10.1007/s11214-011-9820-x, 2011.

Giagkiozis, I., S. N. Walker and M. A. Balikhin, Dynamics of ion sound waves in the front of the terrestrial bow shock, *Ann. Geophys.*, 29, 805, doi:10.5194/angeo-29-805-2011, 2011.

Grimald, S., F. El- Lemdani- Mazouz, C. Foulon, P. M. E. Décréau, S. A. Boardsen, and X. Vallières, Study of nonthermal continuum patches: Wave propagation and plasmapause study, *J. Geophys. Res.*, 116, A07219, doi:10.1029/2011JA016476, 2011.

Gurgiolo, C., M. L. Goldstein, A. F. Viñas, W. H. Matthaeus and A. N. Fazakerley, Observations of electron vorticity in the inner plasma sheet, *Ann. Geophys.*, 29, 1517, doi:10.5194/angeo-29-1517-2011, 2011.

Hamrin, M., O. Marghitu, P. Norqvist, **S. Buchert, M. André**, B. Klecker, L. M. Kistler and I. Dandouras, Energy conversion regions as observed by Cluster in the plasma sheet, *J. Geophys. Res.*, 116, A00K08, doi:10.1029/2010JA016383, 2011.

Haque, N., U. S. Inan, T. F. Bell, J. S. Pickett, J. G. Trotignon, and G. Facskó, Cluster observations of whistler mode ducts and banded chorus, *Geophys. Res. Lett.*, 38, L18107, doi:10.1029/2011GL049112, 2011.

He, J.-S., E. Marsch, C.-Y. Tu, Q.-G. Zong, S. Yao, and H. Tian, Two-dimensional correlation functions for density and magnetic field fluctuations in magnetosheath turbulence measured by the Cluster spacecraft, *J. Geophys. Res.*, 116, A06207, doi:10.1029/2010JA015974, 2011.

Hwang, K.-J., M. L. Goldstein, E. Lee, and J. S. Pickett, Cluster observations of multiple dipolarization fronts, *J. Geophys. Res.*, 116, A00I32, doi:10.1029/2010JA015742, 2011.

Kawano, H., S. Ohtani, T. Uozumi, T. Tokunaga, A. Yoshikawa, K. Yumoto, E. A. Lucek, **M. André**, and the CPMN group: Pi 2 waves simultaneously observed by Cluster and CPMN ground-based magnetometers near the plasmapause, *Ann. Geophys.*, 29, 1663-1672, doi:10.5194/angeo-29-1663-2011, 2011.

**Khotyaintsev, Yu.V., C.M. Cully, A. Vaivads, M. André**, and C. J. Owen, Plasma Jet Braking: Energy Dissipation and Non-Adiabatic Electrons, *Phys. Rev. Lett.*, 06, 165001, doi:10.1103/PhysRevLett.106.165001, 2011.

Lu Q M, Wang R S, Xie J L, et al. Electron dynamics in collisionless magnetic reconnection, *Chinese Sci. Bull.*, 56: 1174–1181, doi: 10.1007/s11434-011-4440-0, 2011.

Maggiolo, R., M. Echim, J. De Keyser, D. Fontaine, C. Jacquay and I. Dandouras, Polar cap ion beams during periods of northward IMF: Cluster statistical results, *Ann. Geophys.*, 29, 771, doi:10.5194/angeo-29-771-2011, 2011.

Marklund, G. T., S. Sadeghi, T. Karlsson, P.-A. Lindqvist, H. Nilsson, C. Forsyth, A. Fazakerley, E. A. Lucek and J. Pickett, Altitude distribution of the auroral acceleration potential determined from Cluster satellite data at different heights, *Phys. Rev. Lett.*, 106, 055002, doi:10.1103/PhysRevLett.106.055002, 2011.

Marklund, G. T. et al., Evolution in space and time of the quasi-static acceleration potential of inverted-V aurora and its interaction with Alfvénic boundary processes, *J. Geophys. Res.*, 116, A00K13, doi:10.1029/2011JA016537, 2011.

Masson, A., P. Escoubet, and M. Taylor, A decade revealing the Sun-Earth connection in three dimensions, *Eos Trans. AGU*, 92, 4, doi:10.1029/2011EO010007, 2011.

Miyake, Y., H. Usui, and H. Kojima, Effects of the guard electrode on the photoelectron distribution around an electric field sensor, *J. Geophys. Res.*, 116, A05211, doi:10.1029/2010JA015600, 2011.

Mozer, F. S. and P. L. Pritchett, Electron physics of asymmetric magnetic field reconnection, *Space Sci. Rev.*, 158, 119-143, doi: 10.1007/s11214-010-9681-8, 2011.

Mozer, F. S., D. Sundkvist, J. P. McFadden, P. L. Pritchett, and I. Roth, Satellite observations of plasma physics near the magnetic field reconnection X line, *J. Geophys. Res.*, 116, A12224, doi:10.1029/2011JA017109, 2011.

Palmroth, M., Laitinen, T. V., Anekallu, C. R., Pulkkinen, T. I., Dunlop, M., Lucek, E. A., and Dandouras, I.: Spatial dependence of magnetopause energy transfer: Cluster measurements verifying global simulations, *Ann. Geophys.*, 29, 823-838, doi:10.5194/angeo-29-823-2011, 2011.

Sadeghi, S., G. T. Marklund, T. Karlsson, P.-A. Lindqvist, H. Nilsson, O. Marghitu, A. Fazakerley, and E. A. Lucek, Spatiotemporal features of the auroral acceleration region as observed by Cluster, *J. Geophys. Res.*, 116, A00K19, doi:10.1029/2011JA016505, 2011.

Shay, M. A, J. F. Drake, J. P. Eastwood and T. D. Phan, Super-Alfvénic propagation of substorm reconnection signatures and Poynting flux, *Phys. Rev. Lett.*, 107, 065001, doi:10.1103/PhysRevLett.107.065001, 2011.

Slapak, R., H. Nilsson, M. Waara, **M. André**, G. Stenberg and I. A. Barghouthi, O<sup>+</sup> heating associated with strong wave activity in the high altitude cusp and mantle, *Ann. Geophys.*, 29, 931-944, doi:10.5194/angeo-29-931-2011, 2011.

Tan, L. C., X. Shao, A. S. Sharma, and S. F. Fung, Relativistic electron acceleration by compressional-mode ULF waves: Evidence from correlated Cluster, Los Alamos National Laboratory spacecraft, and ground-based magnetometer measurements, *J. Geophys. Res.*, 116, A07226, doi:10.1029/2010JA016226, 2011.

Teh, W.-L., R. Nakamura, B. U. Ö. Sonnerup, J. P. Eastwood, M. Volwerk, A. N. Fazakerley, and W. Baumjohann, Evidence of the origin of the Hall magnetic field for reconnection: Hall MHD reconstruction results from Cluster observations, *J. Geophys. Res.*, 116, A11218, doi:10.1029/2011JA016991, 2011.

**Vaivads, A., A. Retinò, Y. V. Khotyaintsev and M. André**, Suprathermal electron acceleration during reconnection onset in the magnetotail, *Ann. Geophys.*, 29, 1917–1925, doi:10.5194/angeo-29-1917-2011, 2011.

Waara, M., R. Slapak, H. Nilsson, G. Stenberg, **M. André** and I. A. Barghouthi, Statistical evidence for O<sup>+</sup> energization and outflow caused by wave-particle interaction in the high altitude cusp and mantle, *Ann. Geophys.*, 29, 945-954, doi:10.5194/angeo-29-945-2011, 2011.

Wild, J. A., Woodfield, E. E., Donovan, E., Fear, R. C., Grocott, A., Lester, M., Fazakerley, A. N., Lucek, E., **Khotyaintsev, Y., André, M.**, Kadokura, A., Hosokawa, K., Carlson, C., McFadden, J. P., Glassmeier, K. H., Angelopoulos, V. and Bjrnsson, G., Midnight sector observations of auroral omega bands *J. Geophys. Res.*, 116, A00I30, doi:10.1029/2010JA015874, 2011.

Yamada, M., Understanding the dynamics of magnetic reconnection layer, *Space Sci. Rev.*, 160:25–43, doi:10.1007/s11214-011-9789-5, 2011.

Yang, B., et al., Pitch angle evolutions of oxygen ions driven by storm time ULF poloidal standing waves, *J. Geophys. Res.*, 116, A03207, doi:10.1029/2010JA016047, 2011.

Yang, B., Q.-G. Zong, S. Y. Fu, X. Li, A. Korth, H. S. Fu, C. Yue, and H. Reme, The role of ULF waves interacting with oxygen ions at the outer ring current during storm times, *J. Geophys. Res.*, 116, A01203, doi:10.1029/2010JA015683, 2011.

Yearby, K. H., M. A. Balikhin, **Yu. V. Khotyaintsev**, S. N. Walker, V. V. Krasnoselskikh, H. St. C. K. Alleyne, and O. Agapitov, Ducted propagation of chorus waves: Cluster observations, *Ann. Geophys.*, 29, 1629–1634, doi:10.5194/angeo-29-1629-2011, 2011.

Zhang, J.-C., L. M. Kistler, C. G. Mouikis, B. Klecker, J.-A. Sauvaud, and M. W. Dunlop, A statistical study of EMIC wave-associated He+ energization in the outer magnetosphere: Cluster/CODIF observations, *J. Geophys. Res.*, 116, A11201, doi:10.1029/2011JA016690, 2011.

Zhou, M., Y. Pang, X. H. Deng, Z. G. Yuan, and S. Y. Huang, Density cavity in magnetic reconnection diffusion region in the presence of guide field, *J. Geophys. Res.*, 116, A06222, doi:10.1029/2010JA016324, 2011.

Zhou, M., S. Y. Huang, X. H. Deng, Y. Pang, Observation of a sharp negative depolarization front in the reconnection outflow region, *Chin. Phys. Lett.*, 28, 109402, doi:10.1088/0256-307X/28/10/109402, 2011.

Zieger, B., A. Retinò, R. Nakamura, W. Baumjohann, **A. Vaivads, and Y. Khotyaintsev**, Jet front- driven mirror modes and shocklets in the near-Earth flow-braking region, *Geophys. Res. Lett.*, 38, L22103, doi:10.1029/2011GL049746, 2011.

Zong Q G, Wang Y F, Yuan C J, et al. Fast acceleration of “killer” electrons and energetic ions by inter-planetary shock stimulated ULF waves in the inner magnetosphere, *Chinese Sci Bull*, 56: 1188–1201, doi: 10.1007/s11434-010-4308-8, 2011.