

## Cluster EFW papers 2009

### Refereed papers (members of the PI team are indicated)

Baumjohann, W., T. Horbury, S. Schwarts, P. Canu, P. Louarn, M. Fujimoto, R. Nakamura, C. Owen, A. Roux and **A. Vaivads**, The Cross-Scale mission, *AIP Conf. Proc.*, 1144, 25-28. 2009.

Chen, L.-J., N. Bessho, B. Lefebvre, H. Vaith, A. Asnes, O. Santolik, A. Fazakerley, P. Puhl-Quinn, A. Bhattacharjee, **Yu. Khotyaintsev**, P. Daly, and R. Torbert, Multispacecraft observations of the electron current sheet, neighboring magnetic islands, and electron acceleration during magnetotail reconnection, *Phys. Plasmas*, 16, 056501, doi:10.1063/1.3112744, 2009.

Clausen, L. B. N., T. K. Yeoman, R. C. Fear, R. Behlke, E. A. Lucek and M. J. Engebretson, First simultaneous measurements of waves generated at the bow shock in the solar wind, the magnetosphere and on the ground, *Ann. Geophys.*, 27, 357-371, [www.ann-geophys.net/27/357/2009/](http://www.ann-geophys.net/27/357/2009/), 2009.

Deng, X. H., M. Zhou, S. Y. Li, W. Baumjohann, **M. André**, N. Cornilleau, O. Santolik, D. I. Pontin, H. Reme, E. Lucek, A. N. Fazakerley, P. Decreau, P. Daly, P., R. Nakamura, R. X. Tang, Y. H. Hu, Y. Pang, J. Büchner, H. Zhao, **A. Vaivads**, J. S. Pickett, C. S. Ng, X. Lin, S. Fu, Z. G. Yuan, Z. W. Su, and J. F. Wang, Dynamics and waves near multiple magnetic null points in reconnection diffusion region. *J. Geophys. Res.*, 114, A07216, doi:10.1029/2008JA013197, 2009.

**Engwall, E., A. I. Eriksson, C. M. Cully, M. André**, R. Torbert and H. Vaith, Earth's ionospheric outflow dominated by hidden cold plasma, *Nature Geoscience*, 2, 24-27, doi:10.1038/ngeo387, 2009.

**Engwall, E., A. I. Eriksson, C. M. Cully, M. André**, P. A. Puhl-Quinn, H. Vaith and R. Torbert, Survey of cold ionospheric outflows in the magnetotail, *Ann. Geophys.*, 27, 3185-3201, <http://www.ann-geophys.net/27/3185/2009/>, 2009

Hamrin, M., P. Norqvist, O. Marghitu, **A. Vaivads**, B. Klecker, L. M. Kistler, and I. Dandouras, Scale size and life time of energy conversion regions observed by Cluster in the plasma sheet, *Ann. Geophys.*, 27, 4147-4155, [www.ann-geophys.net/27/4147/2009/](http://www.ann-geophys.net/27/4147/2009/), 2009.

Haaland, S., B. Lybekk, K. Svenes, A. Pedersen, M. Förster, H. Vaith and R. Torbert, Plasma transport in the magnetotail lobes, *Ann. Geophys.*, 27, 3577-3590, [www.ann-geophys.net/27/3577/2009/](http://www.ann-geophys.net/27/3577/2009/), 2009.

Hamrin, M., P. Norqvist, O. Marghitu, **S. Buchert**, B. Klecker, L. M. Kistler and I. Dandouras, Occurrence and location of concentrated load and generator regions observed by Cluster in the plasma sheet, *Ann. Geophys.*, 27, 4131-4146, [www.ann-geophys.net/27/4131/2009/](http://www.ann-geophys.net/27/4131/2009/), 2009.

Hasegawa, H., A. Retinò, **A. Vaivads**, **Y. Khotyaintsev**, **M. André**, T. K. M. Nakamura, W.-L. Teh, B. U. Ö. Sonnerup, S. J. Schwartz, Y. Seki, M. Fujimoto, Y. Saito, H. Rème, and P. Canu, P, Kelvin-Helmholtz waves at the Earth's magnetopause: Multiscale development and associated reconnection, *J. Geophys. Res.*, 114, A12207, doi:10.1029/2009JA014042, 2009.

Kiyani, K. H., S. C. Chapman, **Yu. V. Khotyaintsev**, M. W. Dunlop and F. Sahraoui, Global scale-invariant dissipation in collisionless plasma turbulence, *Phys. Rev. Lett.*, 103, 075006, 2009.

**Lindstedt, T., Yu. V. Khotyaintsev, A. Vaivads, M. André**, R. C. Fear, B. Lavraud, S. Haaland, and C. J. Owen. Separatrix regions of magnetic reconnection at the magnetopause, *Ann. Geophys.*, 27, 4039-4056, [www.ann-geophys.net/27/4039/2009/](http://www.ann-geophys.net/27/4039/2009/), 2009.

Marklund, G. T., On the ionospheric coupling of auroral electric fields, *Nonlin. Processes Geophys.*, 16, 365-372, [www.nonlin-processes-geophys.net/16/365/2009/](http://www.nonlin-processes-geophys.net/16/365/2009/), 2009.

Marklund, G. T., On high-altitude electric fields in the auroral downward current region and their coupling to ionospheric electric fields, *Adv. Space Res.*, doi:10.1016/j.asr.2008.08.024, 2009.

Marklund, G. T., Electric fields and plasma processes in the auroral downward current region, below, within, and above the acceleration region, *Space Sci. Rev.*, 141, 1-21, doi:10.1007/s11214-008-9373-9, 2009.

Möstl, C., C. J. Farrugia, H. K. Biernat, S. A. Kiehas, R. Nakamura, V. V. Ivanova and **Y. Khotyaintsev**, The structure of an earthward propagating magnetic flux rope early in its evolution: comparison of methods, *Ann. Geophys.*, 27, 2215-2224, [www.ann-geophys.net/27/2215/2009/](http://www.ann-geophys.net/27/2215/2009/), 2009.

Nakamura, R., A. Retinò, W. Baumjohann, M. Volwerk, N. Erkaev, B. Klecker, E. A. Lucek, I. Dandouras, **M. André and Y. Khotyaintsev**, Y. Evolution of dipolarization in the near-Earth current sheet induced by Earthward rapid flux transport, *Ann. Geophys.*, 27, 1743-1754, [www.ann-geophys.net/27/4075/2009/](http://www.ann-geophys.net/27/4075/2009/), 2009..

Sahraoui, F., M. L. Goldstein, P. Robert, **Yu. V. Khotyaintsev**, Evidence of a cascade and dissipation of solar-wind turbulence at the electron gyroscale, *Phys. Rev. Lett.*, 102, 231102, 10.1103/PhysRevLett.102.231102, 2009.

Schwartz, S. J. T. Horbury, C. Owen, W. Baumjohann, R. Nakamura, P. Canu, A. Roux, F. Sahraoui, P. Louarn, J.-A. Sauvaud, J. L. Pincon, **A. Vaivads**, M. F. Marcucci, A. Anastasiadis, M. Fujimoto, P. Escoubet, M. Taylor, S. Eckersley, E. Allouis, and M.-C. Perkinson, Cross-scale: multi-scale coupling in space plasmas, *Exp. Astr.*, 23, 1001-1015, 2009.

Tjulin, A., E. A. Lucek and I. Dandouras, Observations and modelling of particle dispersion signatures at a hot flow anomaly, *J. Geophys. Res.*, 114, A06208, doi:10.1029/2009JA014065, 2009.

Trines, R. M. G. M., R. Bingham, L. O. Silva, J. T. Mendonça, P. K. Shukla, C. D. Murphy, M. W. Dunlop, J. A. Davies, R. Bamford, **A. Vaivads**, A. and P. A. Norreys, Applications of the wave kinetic approach: From laser wakefields to drift wave turbulence, *Phys. Plasmas*, 16, 055904-055912, doi:10.1063/1.3125929, 2009.

**Vaivads, A.**, Retinò, A. and **M. André**, Magnetic reconnection in space plasma. *Plasma Phys. Control. Fusion*, 51, 124016, doi:10.1088/0741-3335/51/12/124016, 2009.

Yamauchi, M., I. Dandouras, P. W. Daly, **G. Stenberg**, H. Frey, P.-A. Lindqvist, Y. Ebihara, H. Nilsson, R. Lundin, H. Rème, **M. André**, E. A. Kronberg, A. Balogh and M. Henderson, Magnetospheric solitary structure maintained by 3000 km/s ions as a cause of westward moving auroral bulge at 19 MLT, *Ann. Geophys.*, 27, 2947-2969, www.ann-geophys.net/27/2947/2009/, 2009.

Zhou, M., X. H. Deng, S. Fu, R. X. Tang, Y. H. Hu, S. Y. Li, **A. Vaivads**, **M. André**, X. Lin, M. H. Lin, M. and X. M. Zhou, Observation of the lower hybrid waves near the three-dimensional null pair. *Sci. China Ser. G: Phys. Mech. Astron.*, 52, 626-630, doi:10.1007/s11433-009-0088-z, 2009.

Zhou, M., X. H. Deng, S. Y. Li, Y. Pang, **A. Vaivads**, H. Rème, E. Lucek, S. Fu, X. Lin, Z. G. Yuan, and J. F. Wang, Observations of waves near lower hybrid frequency in the reconnection region with thin current sheet, *J. Geophys. Res.*, 114, A02216, doi:10.1029/2008JA013427, 2009.