

# PUBLICATIONS

## Thesis

1. Nakamura, R: Aurora dynamics and particle injection associated with magnetospheric substorms, Doctor Thesis, University of Tokyo, 1990.
2. Nakamura, R.: Flux transport and current sheet dynamics in the Earth's magnetotail, Habilitation, Institut für Physik, Universität Graz, 233 pages, 2010.

## Refereed Articles (First-Author)

3. Nakamura, R., T. Oguti, Drifts of auroral structures and magnetospheric electric fields, *J. Geophys. Res.*, 92, 11241-11247, 1987.
4. Nakamura, R., T. Yamamoto, T. Oguti, Enhancements in auroral drift velocity in the dusk sector associated with a small substorm in the midnight sector, *J. Geomag. Geoelectr.*, 40, 409-422, 1988.
5. Nakamura, R., T. Oguti, T. Yamamoto, S. Kokubun, D. N. Baker, R. D. Belian, Aurora and energetic particle signatures during a substorm with multiple expansions, in "Magnetospheric Substorms", 285-294, AGU, Washington, 1991.
6. Nakamura, R., T. Yamamoto, Substorm-associated changes in the particle precipitation pattern, *J. Geomag. Geoelectr.*, 44, 1239-1249, 1992.
7. Nakamura, R., D. N. Baker, D. H. Fairfield, D. G. Mitchell, R. L. McPherron, Plasma flow and magnetic field characteristics in the midtail region, *Adv. Space. Res.*, 13(4), 223-228, 1993.
8. Nakamura, R., T. Oguti, T. Yamamoto, S. Kokubun, Equatorward and poleward expansion of the auroras during auroral substorms, *J. Geophys. Res.*, 98, 5743-5759, 1993.
9. Nakamura, R., D. N. Baker, T. Yamamoto, R. D. Belian, E. A. Bering III, J. R. Benbrook, J. R. Theall, Particle and field signatures during pseudobreakup and major expansion onset, *J. Geophys. Res.*, 99, 207-221, 1994.
10. Nakamura, R., D. N. Baker, D. H. Fairfield, D. G. Mitchell, R. L. McPherron, E. W. Hones Jr., Plasma flow and magnetic field characteristics near the midtail neutral sheet, *J. Geophys. Res.*, 99, 23591-23601, 1994.
11. Nakamura, R., D. N. Baker, J. B. Blake, S. Kanekal, B. Klecker, D. Hovestadt, Relativistic electron precipitation enhancements near the outer edge of the radiation belt, *Geophys. Res. Lett.*, 22, 1129-1132, 1995.
12. Nakamura, R., S. Kokubun, Y. Kamide, T. Yamamoto, L. A. Frank, W. R. Paterson, E. Friis-Christensen, K. Hayashi, T. Iyemori, K. Yumoto, H. Luehr, O. A. Troshichev, Observations of the magnetosheath near the nominal tail axis during the geomagnetic storm of January 25, 1993, *J. Geomag. Geoelectr.*, 48, 577-588, 1996.
13. Nakamura, R., S. Kokubun, T. Mukai, T. Yamamoto, Changes in the distant tail configuration during geomagnetic storms, *J. Geophys. Res.*, 102, 9587-9601, 1997.

14. Nakamura, R., K. Kamei, Y. Kamide, D. N. Baker, J. B. Blake, M. Looper, SAMPEX observations of storm-associated electron flux variations in the outer radiation belt, *J. Geophys. Res.*, 103, 26261-12269, 1998.
15. Nakamura, R., GEOTAIL substorm/storm studies, in "Sun-Earth Plasma Connections", 47-56, AGU, Washington, 1999.
16. Nakamura, R., L. F. Bargatze, T. Mukai, T. Nagai, K. B. Baker, M. R. Hairston, P. H. Reiff, A. A. Petrukovich, M. Nozdrachev, O. A. Troshichev, Response of the midtail electric field to enhanced solar wind energy input, *J. Geophys. Res.* 104, 17299-17310, 1999.
17. Nakamura, R., G. Haerendel, W. Baumjohann, A. Vaivads, H. Kucharek, B. Klecker, E. Georgescu, J. Birn, L. M. Kistler, T. Mukai, S. Kokubun, P. Eglitis, L. A. Frank, J. B. Sigwarth, Substorm observations in the early morning sector with Equator-S and Geotail, *Ann. Geophys.*, 17, 1602-1610, 1999.
18. Nakamura, R., S. Kokubun, Tail configuration during storms, *Adv. Space. Res.*, 25(7/8), 1631-1638, 2000.
19. Nakamura, R., M. Isowa, Y. Kamide, D. N. Baker, J. B. Blake, M. Looper, SAMPEX observations of precipitation bursts in the outer radiation belt, *J. Geophys. Res.* 105, 15875-15885, 2000.
20. Nakamura, R., W. Baumjohann, M. Brittnacher, V. A. Sergeev, M. Kubyshkina, T. Mukai, K. Liou, Flow bursts and auroral activations: Onset timing and foot point location, *J. Geophys. Res.*, 106, 10777-10789, 2001.
21. Nakamura, R., W. Baumjohann, R. Schoedel, V. A. Sergeev, M. Kubyshkina, M. Brittnacher, T. Mukai, K. Liou, Earthward flow bursts, auroral streamers and small expansions, *J. Geophys. Res.*, 106, 10791-10802, 2001.
22. Nakamura, R., W. Baumjohann, B. Klecker, Y. Bogdanova, A. Balogh, H. Reme, J.-M. Bosqued, I. Dandouras, J.-A. Sauvaud, K.-H. Glassmeier, L. Kistler, C. Mouikis, T. L. Zhang, H. Eichelberger, A. Runov, Motion of the dipolarization front during a flow burst event observed by Cluster, *Geophys. Res. Lett.*, 29, 1942, doi:10.1029/2002GL015763, 2002.
23. Nakamura, R., J. B. Blake, S. R. Elkington, D. N. Baker, W. Baumjohann, Relationship between ULF waves and radiation belt electrons during the March 10, 1998 storm, *Adv. Space Res.*, 30(10), 2163-2168, 2002.
24. Nakamura, R., W. Baumjohann, A. Runov, M. Volwerk, T. L. Zhang, B. Klecker, Y. Bogdanova, A. Roux, A. Balogh, H. Reme, J. A. Sauvaud, H. U. Frey, Fast flow during current sheet thinning, *Geophys. Res. Lett.*, 29, 2140, doi:10.1029/2002GL016200, 2002.
25. Nakamura, R., W. Baumjohann, T. Nagai, M. Fujimoto, T. Mukai, B. Klecker, R. Treumann, A. Balogh, H. Reme, J. A. Sauvaud, L. Kistler, C. Mouikis, C. J. Owen, A. N. Fazakerly, J. P. Dewhurst, Y. Bogdanova, Flow shear near the boundary of the plasma sheet observed by Cluster and Geotail, *J. Geophys. Res.*, 109, A05204, doi:10.1029/2003JA010174, 2004.
26. Nakamura, R., W. Baumjohann, C. Mouikis, L. M. Kistler, A. Runov, M. Volwerk, Y. Asano, Z. Voeroes, T. L. Zhang, B. Klecker, H. Reme, and A. Balogh, Spatial scale of high-speed flows in the plasma sheet observed by Cluster, *Geophys. Res. Lett.*, 31, L09804, doi:10.1029/2004GL019558, 2004.

27. Nakamura, R., O. Amm, H. Laakso, N. Draper, M. Lester, A., Grocott, B. Klecker, I. W. McCrea, A. Balogh, H. Reme, M. Andre, Localized fast flow disturbance observed in the plasma sheet and in the ionosphere, *Ann. Geophys.*, 23, 553-566, 2005.
28. Nakamura R., W. Baumjohann, T. L. Zhang, C. M. Carr, A. Balogh, K-H. Fornacon, E. Georgescu, H. Rème, I. Dandouras, T. Takada, M. Volwerk, Y. Asano, A. Runov, H. Eichelberger, B. Klecker, C. Mouikis, L. M. Kistler, O. Amm, Cluster and Double Star Observations of Dipolarization, *Ann. Geophys.*, 23, 2915-2920, 2005.
29. Nakamura, R., W. Baumjohann, C. Mouikis, L. M. Kistler, A. Runov, M. Volwerk, Y. Asano, Z. Vörös, T. L. Zhang, B. Klecker, A. Balogh, and H. Rème, Multi-point observation of the high-speed flows in the plasma sheet, *Adv. Space Res.*, 36, 1444–1447, 2005.
30. Nakamura, R., W. Baumjohann, A. Runov and Y. Asano, Thin current sheets in the magnetotail observed by Cluster, *Space Sci. Rev.*, 122, 1, 29-38, 2006.
31. Nakamura, R.: Substorms and their solar wind causes, *Space Sci. Rev.*, 124, 91-101, doi: 10.1007/s11214-006-9131-9, 2006.
32. Nakamura, R., W. Baumjohann, Y. Asano, A.V. Rounov, A. Balogh, C.J. Owen, A.N. Fazakerley, M. Fujimoto, B. Klecker, H. Rème: Dynamics of thin current sheets associated with magnetotail reconnection, *J. Geophys. Res.*, 111, A11206, doi:10.1029/2006JA011706, 2006.
33. Nakamura, R., W. Baumjohann, M. Fujimoto, Y. Asano, A. Runov, C. J. Owen, A. N. Fazakerley, B. Klecker, H. Reme, E. A. Lucek, M. Andre, Y. Khotyaintsev, Cluster observations of an ion-scale current sheet in the magnetotail under the presence of a guide field, *J. Geophys. Res.*, 113, A07S16, doi:10.1029/2007JA012760, 2008.
34. Nakamura, R., W. Baumjohann: Tackling substorm problems: New observational and modeling capabilities, *EOS Trans. AGU*, 89, 324, 2008.
35. Nakamura, R., A. Retinò, W. Baumjohann, M. Volwerk, N. Erkaev, B. Klecker, E. A. Lucek, I. Dandouras, M. André, and Y. Khotyaintsev, Evolution of dipolarization in the near-Earth current sheet induced by Earthward rapid flux transport, *Ann. Geophys.*, 27, 1743–1754, 2009.
36. Nakamura, R., W. Baumjohann, E. Panov, A.A. Petrukovich, V. Angelopoulos, M. Volwerk, W. Magnes, Y. Nishimura, A. Runov, C.T. Russell, J.M. Weygand, O. Amm, H.U. Auster, J. Bonnell, H. Frey, D. Larson, J. McFadden: Flux transport, dipolarization, and current sheet evolution during a double - onset substorm, *J. Geophys. Res.*, 116, A00I36, doi:10.1029/2010JA015865, 2011.
37. Nakamura, R., W. Baumjohann, E. Panov, M. Volwerk, J. Birn, A. Artemyev, A. A. Petrukovich, O. Amm, L. Juusola, M. V. Kubyschkina, S. Apatenkov, E. A. Kronberg, P. W. Daly, M. Fillingim, J. M. Weygand, A. Fazakerley and Y. Khotyaintsev, Flow bouncing and electron injection observed by Cluster, *J. Geophys. Res.*, 118, doi:10.1029/2012JA018068, 2013.
38. Nakamura, R., F. Plaschke, R. Teubenbacher, L. Giner, W. Baumjohann, W. Magnes, M. Steller, R.B. Torbert, H. Vaith, M. Chutter, K.-H. Fornacon, K.-H. Glassmeier, C. Carr: Inter-instrument calibration using magnetic field data from Flux Gate Magnetometer (FGM) and Electron Drift Instrument (EDI) onboard Cluster, *Geosci. Instrum. Method. Data Syst. Disc.*, 3, 459-487, doi:10.5194/gid-3-459-2013, 2013.

39. Nakamura, R., F. Plaschke, R. Teubenbacher, L. Giner, W. Baumjohann, W. Magnes, M. Steller, R.B. Torbert, H. Vaith, M. Chutter, K.-H. Fornaçon, K.-H. Glassmeier, C. Carr: Interinstrument calibration using magnetic field data from the Flux-Gate Magnetometer (FGM) and Electron Drift Instrument (EDI) onboard Cluster, *Geosci. Instrum. Method. Data Syst.*, 3, 1-11, doi:10.5194/gi-3-1-2014, 2014
40. Nakamura, R., T. Karlsson, M. Hamrin, H. Nilsson, O. Marghitu, O. Amm, C. Bunesco, V. Constantinescu, H.U. Frey, A. Keiling, J. Semeter, E. Sorbalo, J. Vogt, C. Forsyth, M.V. Kubyshkina: Low-altitude electron acceleration due to multiple flow bursts in the magnetotail, *Geophys. Res. Lett.*, 41, 777-784, doi:10.1002/2013GL058982, 2014
41. Nakamura, R., V.A. Sergeev, W. Baumjohann, F. Plaschke, W. Magnes, D. Fischer, A. Varsani, D. Schmid, T.K.M. Nakamura, C.T. Russell, R.J. Strangeway, H.K. Leinweber, G. Le, K.R. Bromund, C.J. Pollock, B.L. Giles, J.C. Dorelli, D.J. Gershman, W. Paterson, L.A. Avanov, S.A. Fuselier, K. Genestreti, J.L. Burch, R.B. Torbert, M. Chutter, M.R. Argall, B.J. Anderson, P.-A. Lindqvist, G.T. Marklund, Y.V. Khotyaintsev, B.H. Mauk, I.J. Cohen, D.N. Baker, A.N. Jaynes, R.E. Ergun, H.J. Singer, J.A. Slavin, E.L. Kepko, T.E. Moore, B. Lavraud, V. Coffey, Y. Saito: Transient, small-scale field-aligned currents in the plasma sheet boundary layer during storm time substorms, *Geophys. Res. Lett.*, 43, 4841-4849, doi:10.1002/2016GL068768, 2016
42. Nakamura, R., K. Torkar, M. Andriopoulou, H. Jeszenszky, C.P. Escoubet, F. Cipriani, P.A. Lindqvist, S.A. Fuselier, C.J. Pollock, B.L. Giles, Y. Khotyaintsev: Initial results from the Active Spacecraft POTential Control onboard Magnetospheric MultiScale mission, *IEEE Trans. Plasma Sci.*, 45, 1847-1852, doi:10.1109/TPS.2017.2694223, 2017
43. Nakamura, R., T. Nagai, J. Birn, V.A. Sergeev, O. Le Contel, A. Varsani, W. Baumjohann, T.K.M. Nakamura, S. Apatenkov, A. Artemyev, R.E. Ergun, S.A. Fuselier, D.J. Gershman, B.J. Giles, Yu.V. Khotyaintsev, P.-A. Lindqvist, W. Magnes, B. Mauk, C.T. Russell, H.J. Singer, J. Stawarz, R.J. Strangeway, B. Anderson, K.R. Bromund, D. Fischer, L. Kepko, G. Le, F. Plaschke, J.A. Slavin, I. Cohen, A. Jaynes, D.L. Turner: Near-Earth plasma sheet boundary dynamics during substorm dipolarization. *Earth Planets Space*, 69, 129, 2017
44. Nakamura, R., Varsani, A., Genestreti, K. J., Le Contel, O., Nakamura, T., Baumjohann, W., et al., Multiscale currents observed by MMS in the flow braking region. *Journal of Geophysical Research: Space Physics*, 123, 1260, <https://doi.org/10.1002/2017JA02468>, 2018
45. Nakamura, R., K.J. Genestreti, T.K.M. Nakamura, W. Baumjohann, A. Varsani, T. Nagai, N. Bessho, J.L. Burch, R.E. Denton, J.P. Eastwood, R.E. Ergun, D.J. Gershman, B.L. Giles, H. Hasegawa, M. Hesse, P. - A. Lindqvist, C.T. Russell, J.E. Stawarz, R.J. Strangeway, R.B. Torbert: Structure of the current sheet in the 11 July 2017 electron diffusion region event, *J. Geophys. Res.*, 124, 1173-1186, doi:10.1029/2018JA026028, 2019.

#### **Refereed Articles (Co-Author)**

46. Baumjohann, W., R. Nakamura, G. Haerendel, Dayside equatorial-plane convection and IMF sector structure, *J. Geophys. Res.*, 91, 4557-4560, 1986.
47. Oguti, T., R. Nakamura, T. Yamamoto, Oscillations in drifts of auroral patches, *J. Geomag. Geoelectr.*, 39, 609-624, 1987.
48. Sandholt, P. E., B. Lybakk, A. Egeland, R. Nakamura, T. Oguti, Midday Auroral Breakup, *J. Geomag. Geoelectr.*, 41, 371-387, 1989.

49. Ohtani, S., S. Kokubun, R. Nakamura, R. C. Elphic, C. T. Russell, D. N. Baker, Field-aligned current signatures in the near-tail region: 2. Coupling between the region 1 and the region 2 systems, *J. Geophys. Res.*, 95, 18913-18927, 1990.
50. Oguti, T., N. Nishitani, R. Nakamura, Auroral activity and its connection with magnetospheric processes: Magnetic field conjugacy between the polar ionosphere and the magnetosphere, *J. Geomag. Geoelectr.*, 43, Suppl., 353-368, 1991.
51. Ohtani, S., B. J. Anderson, D. G. Sibeck, P. T. Newell, L. J. Zanetti, T. A. Potemra, K. Takahashi, R. E. Lopez, V. Angelopoulos, R. Nakamura, D. M. Klumpar, C. T. Russell, A multisatellite study of a pseudo-substorm onset in the near-Earth magnetotail, *J. Geophys. Res.*, 98, 19355-19367, 1993.
52. Nemzek, R. J., R. Nakamura, D. N. Baker, R. D. Belian, D. J. McComas, M. F. Thomsen, T. Yamamoto, The relationship between pulsating auroras observed from the ground and energetic electrons and plasma density measured at geosynchronous orbit, *J. Geophys. Res.*, 100, 23935-23944, 1995.
53. Blake, J. B., M. D. Looper, D. N. Baker, R. Nakamura, B. Klecker, D. Hovestadt, New high temporal and spatial resolution measurements by SAMPEX of the precipitation of relativistic electrons, *Adv. Space Res.*, 18(8), 171-186, 1995.
54. Baumjohann, W., Y. Kamide, R. Nakamura, Substorms, storms, and the near-earth tail, *J. Geomag. Geoelectr.*, 48, 177-185, 1996.
55. Kokubun, S., L. A. Frank, K. Hayashi, Y. Kamide, R. P. Lepping, T. Mukai, R. Nakamura, W. R. Paterson, T. Yamamoto, K. Yumoto, Large field events in the distant magnetotail during magnetic storms, *J. Geomag. Geoelectr.*, 48, 561-575, 1996.
56. Kamide, Y., R. Nakamura, The convection electrojet and the substorm electrojet, *Ann. Geophys.*, 14, 589-592, 1996.
57. Pulkkinen, T. I., D. N. Baker, N. E. Turner, H. J. Singer, L. A. Frank, J. B. Sigwarth, J. Scudder, R. Anderson, S. Kokubun, R. Nakamura, T. Mukai, J. B. Blake, C. T. Russell, H. Kawano, F. Mozer, J. A. Slavin, Solar wind-magnetosphere coupling during an isolated substorm event: A multispacecraft ISTP study, *Geophys. Res. Lett.*, 24, 983-986, 1997.
58. Li, X., D. N. Baker, M. Temerin, T. E. Cayton, E. G. D. Reeves, R. A. Christensen, J. B. Blake, M. D. Looper, R. Nakamura, S. G. Kanekal, Multisatellite observations of the outer zone electron variation during the November 3-4, 1993, magnetic storm, *J. Geophys. Res.*, 102, 14123-14140, 1997.
59. Nagai, T., R. Nakamura, T. Mukai, T. Yamamoto, A. Nishida, S. Kokubun, Substorms, tail flows and plasmoids, *Adv. Space Res.*, 20(4/5), 961-971, 1997.
60. McPherron, R. L., R. Nakamura, S. Kokubun, Y. Kamide, K. Shiokawa, K. Yumoto, T. Mukai, Y. Saito, K. Hayashi, T. Nagai, S. Ables, D. N. Baker, E. Friis-Christensen, B. Fraser, T. Hughes, G. Reeves, H. Singer, Fields and flows at Geotail during a moderate substorm, *Adv. Space Res.*, 20(4/5), 923-931, 1997.
61. Pulkkinen, T. I., D. N. Baker, L. A. Frank, J. B. Sigwarth, H. J. Opgenoorth, R. Greenwald, E. Friis-Christensen, T. Mukai, R. Nakamura, H. Singer, G. D. Reeves, M. Lester, Two substorm intensifications compared: Onset, expansion, and global consequences, *J. Geophys. Res.*, 103, 15-27, 1998.

62. Nagai, T., M. Fujimoto, Y. Saito, S. Machida, T. Terasawa, R. Nakamura, T. Yamamoto, T. Mukai, A. Nishida, S. Kokubun, Structure and dynamics of magnetic reconnection for substorm onsets with Geotail observations, *J. Geophys. Res.*, 103, 4419-4440, 1998.
63. Nagai, T., M. Fujimoto, M. S. Nakamura, R. Nakamura, Y. Saito, T. Mukai, T. Yamamoto, A. Nishida, S. Kokubun, A large southward magnetic field of -23.5 nT in the January 10, 1995, plasmoid, *J. Geophys. Res.*, 103, 4441-4451, 1998.
64. Sergeev, V. A., Y. Kamide, S. Kokubun, R. Nakamura, C. S. Deehr, T. J. Hughes, R. P. Lepping, T. Mukai, A. A. Petrukovich, J.-H. Shue, K. Shiokawa, O. A. Troshichev, K. Yumoto, Short duration convection bays and localized interplanetary magnetic field structures on November 28, 1995, *J. Geophys. Res.*, 103, 23593-23609, 1998.
65. Nagai, T., R. Nakamura, S. Kokubun, Y. Saito, T. Yamamoto, T. Mukai, A. Nishida, Near-Earth plasma sheet behavior during substorms, in "Geospace Mass and Energy Flow: Results From the International Solar-Terrestrial Physics Program", 213-226, AGU, Washington, 1998.
66. Nagai, T., M. Fujimoto, R. Nakamura, Y. Saito, T. Mukai, T. Yamamoto, A. Nishida, S. Kokubun, G. D. Reeves, R. P. Lepping, Geotail observations of a fast tailward flow at XGSM = -15 RE, *J. Geophys. Res.*, 103, 23543-23550, 1998.
67. Dunlop, M. W., A. Balogh, W. Baumjohann, G. Haerendel, K.-H. Fornacon, E. Georgescu, R. Nakamura, S. Kokubun, Dynamics and local boundary properties of the dawn-side magnetopause under conditions observed by Equator-S, *Ann. Geophys.*, 17, 1535-1559, 1999.
68. Haerendel, G., W. Baumjohann, E. Georgescu, R. Nakamura, L. M. Kistler, B. Klecker, H. Kucharek, A. Vaivads, T. Mukai, S. Kokubun: High-beta plasma blobs in the morningside plasma sheet, *Ann. Geophys.*, 17, 1592-1601, 1999.
69. Kawano, H., R. Nakamura, S. Kokubun, T. Mukai, T. Yamamoto, K. Yumoto, J. A. Slavin, Substorm-associated shrinkage of the mid-tail magnetosphere: IACG campaign #2, *Adv. Space Res.*, 25(7/8), 1689-1696, 2000.
70. Sergeev, V. A., J.-A. Sauvaud, D. Popescu, R. A. Kovrazhkin, K. Liou, P. T. Newell, M. Brittnacher, G. Parks, R. Nakamura, T. Mukai, G. D. Reeves, Multiple-spacecraft observation of a narrow transient plasma jet in the Earth's plasma sheet, *Geophys. Res. Lett.*, 27, 851-854, 2000.
71. Karlsson, S. B. P., H. J. Opgenoorth, P. Eglitis, K. Kauristie, M. Syrjasuo, T. Pulkkinen, M. Lockwood, R. Nakamura, G. Reeves, S. Romanov, Solar wind control of magnetospheric energy content: Substorm quenching and multiple onsets, *J. Geophys. Res.*, 105, 5335-5356, 2000.
72. Petrukovich, A. A., W. Baumjohann, R. Nakamura, T. Mukai, O. A. Troshichev, Small substorms: Solar wind input and magnetotail dynamics, *J. Geophys. Res.*, 105, 21109-21118, 2000.
73. Vaivads, A., G. Haerendel, W. Baumjohann, R. Nakamura, H. Kucharek, E. Georgescu, B. Klecker, L. M. Kistler, Compressional Pc5 pulsations as sloshing in the plasma sheet, *J. Geophys. Res.*, 105, 23287-23292, 2000.
74. Schödel, R., W. Baumjohann, R. Nakamura, V. A. Sergeev, T. Mukai, Rapid flux transport in the central plasma sheet, *J. Geophys. Res.*, 106, 301-313, 2001.
75. Schödel, R., W. Baumjohann, R. Nakamura, T. Mukai, Rapid flux transport and plasma sheet

- reconfiguration, *J. Geophys. Res.*, 106, 8381-8390, 2001.
76. Mishin, V. M., T. Saifudinova, A. Bazarzhapov, C. T. Russell, W. Baumjohann, R. Nakamura, M. Kubyschkina, Two distinct substorm onsets, *J. Geophys. Res.*, 106, 13105-13118, 2001.
  77. Vaivads, A., G. Haerendel, W. Baumjohann, R. Nakamura, H. Kucharek, B. Klecker, M. R. Lessard, L. M. Kistler, T. Mukai, A. Nishida, Compressional Pc5 type pulsations in the morningside plasma sheet, *Ann. Geophys.*, 19, 311-320, 2001.
  78. Sergeev, V. A., M. Kubyschkina, K. Liou, P. Newell, G. Parks, R. Nakamura, T. Mukai, Substorm and convection bay compared: Auroral and magnetotail dynamics during convection bay, *J. Geophys. Res.*, 106, 18843-18855, 2001.
  79. Petrukovich, A. A., W. Baumjohann, R. Nakamura, R. Schödel, T. Mukai, Are earthward bursty bulk flows convective or field-aligned? *J. Geophys. Res.*, 106, 21211-21215, 2001.
  80. Vaivads, A., W. Baumjohann, E. Georgescu, G. Haerendel, R. Nakamura, M. R. Lessard, P. Eglitis, L. M. Kistler, R. E. Ergun, Correlation studies of compressional Pc5 pulsations in space and Ps6 pulsations on the ground, *J. Geophys. Res.*, 106, 29797-29806, 2001.
  81. Baumjohann, W., R. Schödel, R. Nakamura, Burst of fast magnetotail flux transport, *Adv. Space Res.*, 30, 2241-2246, 2002.
  82. Schödel, R., K. Dierschke, W. Baumjohann, R. Nakamura, T. Mukai, The storm-time plasma sheet. *Ann. Geophys.*, 20, 1737-1741, 2002.
  83. Zhang, T. L., W. Baumjohann, R. Nakamura, A. Balogh, K.-H. Glassmeier, A wavy twisted neutral sheet observed by CLUSTER, *Geophys. Res. Lett.*, 29(19), 1899, doi:10.1029/2002GL015544, 2002.
  84. Runov, A., R. Nakamura, W. Baumjohann, T. L. Zhang, M. Volwerk, and H.-U. Eichelberger, Cluster observation of a bifurcated current sheet, *Geophys. Res. Lett.*, 30 (2), 1036, doi:10.1029/2002GL016136, 2003.
  85. Volwerk, M., W. Baumjohann, K.-H. Glassmeier, R. Nakamura, T. L. Zhang, A. Runov, B. Klecker, R. Treumann, Y. Bogdanova, H.-U. Eichelberger, A. Balogh, and H. Reme, Kink mode oscillation of the current sheet, *Geophys. Res. Lett.*, 30(6), 1320, doi:10.1029/2002GL016467, 2003.
  86. Sergeev, V. A. Runov, W. Baumjohann, R. Nakamura, T. L. Zhang, M. Volwerk, A. Balogh, H. Reme, J. A. Sauvaud, M. Andre, and B. Klecker, Current sheet flapping motion and structure observed by Cluster, *Geophys. Res. Lett.*, 30(6), 1327, doi:10.1029/2002GL016500, 2003.
  87. Runov, A., R. Nakamura, W. Baumjohann, R. A. Treumann, T. L. Zhang, M. Volwerk, Z. Vörös, A. Balogh, K.-H. Glassmeier, B. Klecker, H. Reme, L. Kistler, Current sheet structure near magnetic X-line observed by Cluster, *Geophys. Res. Lett.*, 30(11), 1579, doi:10.1029/2002GL016730, 2003.
  88. Noda, H., W. Baumjohann, R. Nakamura, K. Torkar, G. Paschmann, H. Vaith, P. Puhl-Quinn, M. Förster, R. Torbert, and J. M. Quinn, Tail lobe convection observed by Cluster/EDI, *J. Geophys. Res.*, 108, 1288, doi:10.1029/2002JA009669, 2003.
  89. Petrukovich, A. A., W. Baumjohann, R. Nakamura, A. Balogh, T. Mukai, and K.-H. Glassmeier, H. Reme, B. Klecker, Plasma sheet structure during strongly northward IMF, *J. Geophys. Res.*, 108, 1258, doi:10.1029/2002JA009738, 2003.

90. Vörös, Z., W. Baumjohann, R. Nakamura, A. Runov, T. L. Zhang, M. Volwerk, H. U. Eichelberger, A. Balogh, T. S. Horbury, K.-H. Glassmeier, B. Klecker, and H. Reme, Multi-scale magnetic field intermittence in the plasma sheet, *Ann. Geophys.*, 21, 1955-1964, 2003.
91. Nagai, T., I. Shinohara, M. Fujimoto, S. Machida, R. Nakamura, Y. Saito, and T. Mukai, The structure of the Hall current system in the vicinity of the magnetic reconnection site, *J. Geophys. Res.*, 108(A10), 1357, 10.1029/2003JA009900, 2003.
92. Volwerk, M., R. Nakamura, W. Baumjohann, R.A. Treumann, A. Runov, Z. Vörös, T.L. Zhang, Y. Asano, B. Klecker, I. Richter, A. Balogh, H. Rème: A statistical study of compressional waves in the tail current sheet. *J. Geophys. Res.*, 108, 1429, doi:10.1029/2003JA010155, 2003.
93. Baumjohann, W., R. Nakamura, R. Schödel, K. Dierschke: Substorms, storms, and the storm-time plasma sheet. in "Disturbances in Geospace: The Storm-Substorm Relationship", Geophysical Monograph Series, Vol. 142, edited by A. Surjalal Sharma, Yohsuke Kamide and Gurbax S. Lakhina, pp. 55-58, Amer. Geophys. Union, Washington, DC, 2003.
94. Volwerk, M., W. Baumjohann, K.-H. Glassmeier, R. Nakamura, T. L. Zhang, A. Runov, B. Klecker, R. Treumann, Y. Bogdanova, H.-U. Eichelberger, A. Balogh, and H. Reme, Compressional waves in the neutral sheet, *Ann. Geophys.*, 22, 303-315, 2004.
95. Sergeev, V., A. Runov, W. Baumjohann, R. Nakamura, T. L. Zhang, A. Balogh, P. Louarnd, J.-A. Sauvaud, and H. Reme, Orientation and propagation of current sheet oscillations, *Geophys. Res. Lett.*, 31, L05807, doi:10.1029/2003GL019346, 2004.
96. Grocott, A., T. K. Yeoman, R. Nakamura, S. W. H. Cowley, H. U. Frey, H. Reme, and B. Klecker, Multi-instrument observations of the ionospheric counterpart to a bursty bulk flow in the near-Earth plasma sheet, *Ann. Geophys.*, 22, 1061-1075, 2004.
97. Vörös, Z., W. Baumjohann, R. Nakamura, A. Runov, M. Volwerk, T.L. Zhang, A. Balogh: Wavelet analysis of magnetic turbulence in the Earth's plasma sheet. *Phys. Plasmas*, 11, 1333-1338, 2004.
98. Deng, X. H., H. Matsumoto, H. Kojima, T. Mukai, R. R. Anderson, W. Baumjohann, and R. Nakamura, Geotail encounter with reconnection diffusion region in the Earth's magnetotail: Evidence of multiple X lines collisionless reconnection?, *J. Geophys. Res.*, 109, A05206, doi:10.1029/2003JA010031, 2004.
99. Zhang, T. L., K. K. Khurana, C. T. Russell, M. G. Kivelson, R. Nakamura, W. Baumjohann, On the Venus bow shock compressibility. *Adv. Space Res.*, 30, 1920-1923, 2004.
100. Volwerk, M., Z. Vörös, W. Baumjohann, R. Nakamura, A. Runov, T.L. Zhang, K.-H. Glassmeier, R.A. Treumann, B. Klecker, A. Balogh, H. Rème: Multi-scale analysis of turbulence in the Earth's current sheet. *Ann. Geophys.*, 22, 2525-2533, 2004.
101. Volwerk, M., K.-H. Glassmeier, A. Runov, R. Nakamura, W. Baumjohann, B. Klecker, I. Richter, A. Balogh, H. Rème, K. Yumoto: Flow burst-induced large-scale plasma sheet oscillation, *J. Geophys. Res.*, 109, A11208, doi:10.1029/2004JA010533, 2004.
102. Vörös, Z., W. Baumjohann, R. Nakamura, M. Volwerk, A. Runov, T. L. Zhang, H. U. Eichelberger, R. Treumann, E. Georgescu, A. Balogh, B. Klecker, H. Reme, Magnetic turbulence in the plasma sheet, *J. Geophys. Res.*, 109, A11215, doi:10.1029/2004JA010414, 2004.



103. Treumann R.H., C. H. Jaroschek, O. D. Constantinescu, R. Nakamura, O. A. Pokhotelov, and E. Georgescu, The strange physics of low frequency mirror mode turbulence in the high temperature plasma of the magnetosheath, *Nonl. Proc. Geophys.*, 11, 647–657, 2004.
104. Runov, A., V. A. Sergeev, R. Nakamura, W. Baumjohann, Z. Vörös, M. Volwerk, Y. Asano, B. Klecker, H. Rème, A. Balogh, Properties of a bifurcated current sheet observed on August 29, 2001, *Ann. Geophys.*, 2535-2540, 2004.
105. Runov, A., V. A. Sergeev, R. Nakamura, W. Baumjohann, T. L. Zhang, Y. Asano, M. Volwerk, Z. Vörös, A. Balogh, H. Rème, Reconstruction of the magnetotail current sheet structure using multi-point Cluster measurements, *Planet. Space Sci.*, 53, 237-243, 2005.
106. Petrukovich, A. A., W. Baumjohann, R. Nakamura, A. Runov, A. Balogh, Cluster vision of the magnetotail current sheet on a macroscale, *J. Geophys. Res.*, 110, A06204, doi:10.1029/2004JA010825, 2005.
107. Nagai, T., M. Fujimoto, R. Nakamura, W. Baumjohann, A. Ieda, I. Shinohara, S. Machida, Y. Saito, and T. Mukai, Solar wind control of the radial distance of the magnetic reconnection site in the magnetotail, *J. Geophys. Res.*, 110, A09208, doi:10.1029/2005JA011207, 2005.
108. Asano, Y., R. Nakamura, W. Baumjohann, A. Runov, Z. Vörös, M. Volwerk, T.L. Zhang, A. Balogh, B. Klecker, H. Rème: How typical are atypical current sheets? *Geophys. Res Lett.*, 32, L03108, doi:10.1029/2004GL021834, 2005.
109. Runov, A., V. A. Sergeev, W. Baumjohann, R. Nakamura, S. Apatenkov, Y. Asano, M. Volwerk, Z. Vörös, T. L. Zhang, A. Petrukovich, A. Balogh, J.-A. Sauvaud, B. Klecker, H. Rème, Electric current and magnetic field geometry in flapping magnetotail current sheets, *Ann. Geophys.*, 23, 1391-1403, 2005.
110. Vörös Z., W. Baumjohann, R. Nakamura, A. Runov, M. Volwerk, A. Balogh, H. Rème, Scale dependent anisotropy of magnetic fluctuations in the Earth's plasma sheet, In *Multi-Scale Coupling of Sun-Earth Processes*, ed. by A.T.Y. Lui et al., Elsevier, Amsterdam, pp. 29-38, 2005.
111. Vörös, Z., W. Baumjohann, R. Nakamura, A. Runov, M. Volwerk, H. Schwarzl, A. Balogh, H. Rème: Dissipation scales in the Earth's plasma sheet estimated from Cluster measurements. *Nonl. Proc. Geophys.*, 12, 725-732, 2005.
112. Sergeev, V. A., M.V. Kubyshkina, W. Baumjohann, R. Nakamura, O. Amm, T. Pulkkinen, V. Angelopoulos, S.B. Mende, B. Klecker, T. Nagai, J.-A. Sauvaud, J.A. Slavin. M.F. Thomsen: Transition from substorm growth to substorm expansion phase as observed with a radial configuration of ISTP and Cluster spacecraft. *Ann. Geophys.*, 23, 2183-2198, 2005.
113. Amm, O. E.F. Donovan, H. Frey, M. Lester, R. Nakamura, J. A. Wild, A. Aikio, M. Dunlop, K. Kauristie, A. Marchaudon, I. W. McCrea, H. J. Opgenoorth, A. Strømme, Coordinated studies of the Geospace environment using Cluster, satellite and ground-based data: An interim review, *Ann. Geophys.*, 23, 2129-2170, 2005.
114. Draper, N.C., M. Lester, S.W.H. Cowley, J.A. Wild, S.E. Milan, G. Provan, A. Grocott, A.N. Fazakerley, A. Lahiff, J.A. Davies, J.-M. Bosqued, J.P. Dewhurst, R. Nakamura, C.J. Owen, J. Watermann, M.G. Henderson, H.J. Singer, E. Donovan: Cluster magnetotail observations of a tailward-travelling plasmoid at substorm expansion phase onset and field aligned currents in the plasma sheet boundary layer, *Ann. Geophys.*, 23, 3667–3683, 2005.

115. Carr, C., P. Brown, T.L. Zhang, J. Gloag, T. Horbury, E. Lucek, W. Magnes, H. O'Brian, T. Oddy, U. Auster, P. Austin, O. Aydogar, A. Balogh, W. Baumjohann, T. Beek, H. Eichelberger, K.-H. Fornacon, E. Georgescu, K.-H. Glassmeier, M. Ludlam, R. Nakamura, I. Richter: The Double Star magnetic field investigation: instrument design, performance and high-lights of the first year's observations. *Ann. Geophys.*, 23, 2713-2732, 2005.
116. Zhang, T.L., R. Nakamura, M. Volwerk, A. Runov, W. Baumjohann, H.U. Eichelberger, C. Carr, A. Balogh, V. Sergeev, J.K. Shi, K.-H. Fornacon: Double Star/Cluster observation of neutral sheet oscillations on 5 August 2004. *Ann. Geophys.*, 23, 2909-2914, 2005.
117. Deng, X.H., R.X. Tang, R. Nakamura, W. Baumjohann, T.L. Zhang, P.W. Daly, H. Rème, C.M. Carr, A. Balogh, Z.X. Liu, J.F. Wang: Observation of reconnection pulses by Cluster and Double Star. *Ann. Geophys.*, 23, 2921-2927, 2005.
118. Volwerk, M., T.L. Zhang, R. Nakamura, A. Runov, W. Baumjohann, K.-H. Glassmeier, T. Takada, H.U. Eichelberger, C.M. Carr, A. Balogh, B. Klecker, H. Reme: Plasma flow channels with ULF waves observed by Cluster and Double Star. *Ann. Geophys.*, 23, 2929-2935, 2005.
119. Zhang, T. L., W. Baumjohann, R. Nakamura, M. Volwerk, A. Runov, Z. Vörös, K.-H. Glassmeier, A. Balogh, Neutral sheet normal direction determination, *Adv. Space Res.*, 36, 1940–1945, 2005.
120. Petrukovich, A. A., W. Baumjohann, R. Nakamura, A. Balogh, K.-H. Glassmeier: Unexpected vertical current sheets in the magnetotail associated with northward IMF. *Adv. Space Res.*, 36, 1830-1834, 2005.
121. Baumjohann, W., R. Nakamura: What is Cluster telling us about magnetotail dynamics? *Adv. Space Res.*, 36, 1909-1915, 2005.
122. Semenov, V.S., T. Penz, V.V. Ivanova, V.A. Sergeev, H.K. Biernat, R. Nakamura, M.F. Heyn, I.V. Kubyskin, I.B. Ivanov: Reconstruction of the reconnection rate from Cluster measurements: First results, *J. Geophys. Res.*, 110, A11217, doi:10.1029/2005JA011181, 2005.
123. Amm, O., R. Nakamura, H. U. Frey, Y. Ogawa, M. Kubyskhina, A. Balogh, and H. Reme, Substorm topology in the ionosphere and magnetosphere during a flux rope event in the magnetotail, *Ann. Geophys.*, 24, 735–750, 2006.
124. Runov, A., V. A. Sergeev, R. Nakamura, W. Baumjohann, S. Apatenkov, Y. Asano, T. Takada, M. Volwerk, Z. Voeroes, T. L. Zhang, J.-A. Sauvaud, H. Reme, and A. Balogh, Local structure of the magnetotail current sheet: 2001 Cluster observations, *Ann. Geophys.*, 24, 247–262, 2006.
125. Cao, J. B., Y. D Ma, G. Parks, H. Reme, I. Dandouras, R. Nakamura, T. L. Zhang, Q. Zong, E. Lucek, C. M. Carr, Z. X. Liu, and G. C. Zhou, Joint observations by Cluster satellites of bursty bulk flows in the magnetotail, *J. Geophys. Res.*, 111, A04206, doi:10.1029/2005JA011322, 2006.
126. Takada, T., R. Nakamura, W. Baumjohann, K. Seki, Z. Vörös, Y. Asano, M. Volwerk, A. Runov, T. L. Zhang, A. Balogh, G. Paschmann, R. B. Torbert, B. Klecker, H. Rème, P. Puhl-Quinn, P. Canu, and P. M. E. Décréau, Alfvén waves in the near-PSBL lobe: Cluster observations, *Ann. Geophys.*, 24, 1001-1013 , 2006.
127. Asano, Y., R. Nakamura, A. Runov, W. Baumjohann, C. McIlwain, G. Paschmann, J. Quinn, I. Alexeev, J. P. Dewhurst, C. J. Owen, A. N. Fazakerley, A. Balogh, H. Rème, B. Klecker, Detailed analysis of low-energy electron streaming in the near-Earth neutral line region during a substorm, *Adv. Space Res.*, 37, 1382–1387, 2006.

128. Deng, X.H., R.X. Tang, H. Matsumoto, J.S. Pickett, A.N. Fazakerley, H. Kojima, W. Baumjohann, A. Coates, R. Nakamura, D.A. Gurnet, Z.X. Liu, Observations of electrostatic solitary waves associated with reconnection by Geotail and Cluster, *Adv. Space Res.*, 37, 1373–1381, 2006.
129. Penz, T., V.S. Semenov, V.V. Ivanova, H.K. Biernat, V.A. Sergeev, R. Nakamura, I.V. Kubyshev, I.B. Ivanov, M.F. Heyn, A reconstruction method for the reconnection rate applied to Cluster magnetotail measurements, *Adv. Space Res.*, 37, 1388–1393, 2006.
130. Vörös, Z, W. Baumjohann, R. Nakamura, M. Volwerk, A. Runov: Bursty bulk flow driven turbulence in the Earth's plasma sheet. *Space Sci. Rev.*, 122, 301-311, 2006.
131. Sergeev, V.A., D.A. Sormakov, S. Apatenkov, W. Baumjohann, R. Nakamura, A.V. Runov, T. Mukai, T. Nagai: Survey of large-amplitude flapping motions in the midtail current sheet. *Ann. Geophys.*, 24, 2015-2024, 2006.
132. Carr, C., P. Brown, T.L. Zhang, O. Aydogar, W. Magnes, U. Auster, A. Balogh, T. Beek, H. Eichelberger, K.-H. Fornacon, E. Georgescu, J. Gloag, H. Liao, M. Ludlam, R. Nakamura, H. O'Brien, T. Oddy, I. Richter, The Double Star magnetic field investigation: Overview of instrument performance and initial results, *Adv. Space Res.*, 38, 1828-1833, 2006.
133. Runov, A., R. Nakamura, and W. Baumjohann, Multi-point study of the magnetotail current sheet, *Adv. Space Res.*, 38 (1), 85-92, 2006.
134. Treumann R. A., C. H. Jaroschek, R. Nakamura, A. Runov, and M. Scholer, The role of the Hall effect in collisionless magnetic reconnection, *Adv. Space Res.*, 38, 101-111, 2006.
135. Zhang, T. L., W. Baumjohann, R. Nakamura, A. Runov, M. Volwerk, Y. Asano, Z. Vörös, H.-U. Eichelberger, V. Sergeev, J.K. Shi, A. Balogh, A statistical survey of the magnetotail current sheet, *Adv. Space Res.*, 38, 1834-1837, 2006.
136. Baumjohann, W. , A. Matsuoka, K.-H. Glassmeier, C.T. Russell, T. Nagai, M. Hoshino, T. Nakagawa, A. Balogh, J.A. Slavin, R. Nakamura, W. Magnes: The magnetosphere of Mercury and its solar wind environment: Open issues and scientific questions. *Adv. Space Res.*, 38, 604-609, 2006.
137. Zhang, T.L., W. Baumjohann, M. Delva, H.-U. Auster, A. Balogh, C.T. Russell, S. Barabash, M. Balikhin, G. Berghofer, H.K. Biernat, H. Lammer, H. Lichtenegger, W. Magnes, R. Nakamura, T. Penz, K. Schwingenschuh, Z. Vörös, W. Zambelli, K.-H. Fornacon, K.-H. Glassmeier, I. Richter, C. Carr, K. Kudela, J.K. Shi, H. Zhao, U. Motschmann, J.-P. Lebreton: Magnetic field investigation of the Venus plasma environment: Expected new results from Venus express. *Planet. Space Sci.*, 54, 1336-1343, 2006.
138. Takada, T., R. Nakamura, W. Baumjohann, Y. Asano, M. Volwerk, T.L. Zhang, B. Klecker, H. Rème, E.A. Lucek, and C. Carr: Do BBFs contribute to inner magnetosphere dipolarizations: Concurrent Cluster and Double Star observations. *Geophys. Res. Lett.*, 33, L21109, doi:10.1029/2006GL027440, 2006.
139. Petrukovich, A.A., T.L. Zhang, W. Baumjohann, R. Nakamura, A.V. Runov, A. Balogh, C. Carr: Oscillatory magnetic flux tube slippage in the plasma sheet, *Ann. Geophys.*, 24, 1695-1704, 2006.
140. Apatenkov, S.V., V.A. Sergeev, M.V. Kubishkina, R. Nakamura, W. Baumjohann, A.V. Runov, I. Alexeev, A. Fazakerley, H. Frey, S. Mühlbacher, P.W. Daly, J.-A. Sauvaud, N. Ganushkina, T.

- Pulkkinen, G.D. Reeves, Y. Khotyaintsev: Multi-spacecraft observation of plasma dipolarization/injection in the inner magnetosphere, *Ann. Geophys.*, 25, 801-814, 2007.
141. Baumjohann, W., A. Roux, O. Le Contel, R. Nakamura, J. Birn, M. Hoshino, A.T.Y. Lui, C.J. Owen, J.-A. Sauvaud, A. Vaivads, D. Fontaine, A.V. Rounov: Dynamics of thin current sheets: Cluster observations, *Ann. Geophys.*, 25, 1365-1389, 2007.
142. Baumjohann and Nakamura, Observations of Tail Reconnection, Chapter 3.3 of "Reconnection of Magnetic Fields: Magnetohydrodynamics and Collisionless Theory and Observations", ed. by J. Birn and E.R. Priest, Cambridge Univ. Press, 209-218, 2007.
143. Baumjohann, W., R. Nakamura: Magnetospheric contributions to the terrestrial magnetic field. In: *Treatise on Geophysics Vol. 5*, Eds. Schubert, G., Elsevier Ltd., Oxford, 77-92, 2007.
144. Grocott, A., T.K. Yeoman, S.E. Milan, O. Amm, H.U. Frey, L. Juusola, R. Nakamura, C.J. Owen, H. Rème, T. Takada: Multi-scale observations of magnetotail flux transport during IMF-northward non-substorm intervals, *Ann. Geophys.*, 25, 1709-1720, 2007.
145. Hasegawa, H., R. Nakamura, M. Fujimoto, V.A. Sergeev, E.A. Lucek, H. Rème, Y. Khotyaintsev: Reconstruction of a bipolar magnetic signature in an earthward jet in the tail: Flux rope or 3D guide-field reconnection?, *J. Geophys. Res. - Space Phys.*, 112, A11206; doi:10.1029/2007JA012492, 2007.
146. Imada, S., R. Nakamura, P.W. Daly, M. Hoshino, W. Baumjohann, S. Mühlbachler, A. Balogh, H. Rème: Energetic electron acceleration in the downstream reconnection outflow region, *J. Geophys. Res.*, 112, A03202, doi:10.1029/2006JA011847, 2007.
147. Ivanova, V., V.S. Semenov, T. Penz, I.B. Ivanov, V.A. Sergeev, M.F. Heyn, C.J. Farrugia, H.K. Biernat, R. Nakamura, W. Baumjohann: Reconstruction of the reconnection rate from Cluster measurements: Method improvements, *J. Geophys. Res. - Space Phys.*, 112, doi:10.1029/2006JA012183, 2007.
148. Laitinen, T.V., R. Nakamura, A.V. Rounov, H. Rème, E.A. Lucek: Global and local disturbances in the magnetotail during reconnection, *Ann. Geophys.*, 25, 1025-1035, 2007.
149. Penz, T., V. Ivanova, V.S. Semenov, R. Nakamura, I.B. Ivanov, H.K. Biernat, M.F. Heyn, V.A. Sergeev, I.V. Kubyshkin: Magnetic reconnection in the Earth's Magnetotail: Reconstruction method and data analysis. In: *Space Science: New Research*, Eds. Maravell, N.S., Nova Science Publishers, Inc., New York, 287-310, 2007.
150. Petrukovich, A.A., W. Baumjohann, R. Nakamura, A.V. Rounov, A. Balogh, H. Rème: Thinning and stretching of the plasma sheet, *J. Geophys. Res. - Space Phys.*, 112, A10213; doi:10.1029/2007JA012349, 2007.
151. Sergeev, V., V. Semenov, M. Kubyshkina, V. Ivanova, W. Baumjohann, R. Nakamura, T. Penz, A.V. Rounov, T.L. Zhang, K.-H. Glassmeier, V. Angelopoulos, H. Frey, J.-A. Sauvaud, P. Daly, J.B. Cao, H. Singer, E. Lucek: Observation of repeated intense near-Earth reconnection on closed field lines with Cluster, Double Star, and other spacecraft, *Geophys. Res. Lett.*, 34, L02103, doi:10.1029/2006GL028452, 2007.
152. Snekvik, K., S. Haaland, N. Ostgaard, H. Hasegawa, R. Nakamura, T. Takada, L. Juusola, O. Amm, F. Pitout, H. Rème, B. Klecker, E.A. Lucek: Cluster observations of a field aligned current at the dawn flank of a bursty bulk flow, *Ann. Geophys.*, 25, 1405-1415, 2007.

153. Volwerk, M., K.-H. Glassmeier, R. Nakamura, T. Takada, W. Baumjohann, B. Klecker, H. Rème, T.L. Zhang, E. Lucek, C.M. Carr: Flow burst-induced Kelvin-Helmholtz waves in the terrestrial magnetotail, *Geophys. Res. Lett.*, 34, L10102, doi: 10.1029/2007GL029459, 2007.
154. Vörös, Z., W. Baumjohann, R. Nakamura, A.V. Rounov, M. Volwerk, T. Takada, E.A. Lucek, H. Rème: Spatial structure of plasma flow associated turbulence in the Earth's plasma sheet, *Ann. Geophys.*, 25, 13-17, 2007.
155. Vörös, Z., W. Baumjohann, R. Nakamura, A.V. Rounov, M. Volwerk, Y. Asano, D. Jankovicova, E.A. Lucek, H. Rème: Spectral scaling in the turbulent Earth's plasma sheet revisited, *Nonlin. Proc. Geophys.*, 14, 535-541, 2007.
156. Zhang, T.L., M. Delva, W. Baumjohann, H.-U. Auster, C. Carr, C.T. Russell, S. Barabash, M. Balikhin, K. Kudela, G. Berghofer, H.K. Biernat, H. Lammer, H.I.M. Lichtenegger, W. Magnes, R. Nakamura, K. Schwingenschuh, M. Volwerk, Z. Vörös, W. Zambelli, K.-H. Fornacon, K.-H. Glassmeier, I. Richter, A. Balogh, H. Schwarzl, S.A. Pope, J.K. Shi, C. Wang, U. Motschmann, J.-P. Lebreton: Little or no solar wind enters Venus' atmosphere at solar minimum, *Nature*, 450, 654-656, doi:10.1038/nature06026, 2007.
157. Fujimoto, M., W. Baumjohann, K. Kabin, R. Nakamura, J.A. Slavin, N. Terada, I. Zelenyi: Hermean magnetosphere-solar wind interaction, *Space Sci. Rev.*, 132 (2-4), 529-550, 2007.
158. Apatenkov, S.V., V.A. Sergeev, O. Amm, W. Baumjohann, R. Nakamura, A. Runov, F. Rich, P. Daly, A. Fazakerley, I. Alexeev, J.A. Sauvaud, Y. Chotyaintsev: Conjugate observation of sharp dynamical boundary in the inner magnetosphere by Cluster and DMSP spacecraft and ground network, *Ann. Geophys.*, 26, 2771-2780, 2008.
159. Artemyev, A.V., A.A. Petrukovich, L.M. Zelenyi, H.V. Malova, V.Y. Popov, R. Nakamura, A. Runov, S. Apatenkov: Comparison of multi-point measurements of current sheet structure and analytical models, *Ann. Geophys.*, 26, 2749-2758, 2008.
160. Asano, Y., R. Nakamura, I. Shinohara, M. Fujimoto, T. Takada, W. Baumjohann, C.J. Owen, A.N. Fazakerley, A. Runov, T. Nagai, E.A. Lucek, H. Rème: Electron flat-top distributions around the magnetic reconnection region, *J. Geophys. Res.*, 113, A01207, doi:10.1029/2007/JA012461, 2008.
161. Auster, H.U., K.H. Glassmeier, W. Magnes, O. Aydogar, W. Baumjohann, D. Constantinescu, D. Fischer, K.H. Fornacon, E. Georgescu, P. Harvey, O. Hillenmaier, R. Kroth, M. Ludlam, Y. Narita, R. Nakamura, K. Okrafka, F. Plaschke, I. Richter, H. Schwarzl, B. Stoll, A. Valavanoglou, M. Wiedemann: The THEMIS Fluxgate Magnetometer, *Space Sci. Rev.*, 141, 235-264, doi:10.1007/s11214-008-9365-9, 2008.
162. Glassmeier, K.H., H.-U. Auster, D. Constantinescu, K.-H. Fornacon, Y. Narita, F. Plaschke, V. Angelopoulos, E. Georgescu, W. Baumjohann, W. Magnes, R. Nakamura, C.W. Carlson, S. Frey, J.P. McFadden, T. Phan, I. Mann, I.J. Rae, J. Vogt: Magnetospheric quasi-static response to the dynamic magnetosheath: A THEMIS case study, *Geophys. Res. Lett.*, 35, L17S01, doi:10.1029/2008GL033469, 2008.
163. Hasegawa, H., A. Retinò, A. Vaivads, Y. Khotyaintsev, R. Nakamura, T. Takada, Y. Miyashita, H. Rème, E.A. Lucek: Retreat and reformation of X-line during quasi-continuous tailward-of-the-cusp reconnection under northward IMF, *Geophys. Res. Lett.*, 35, L15104, doi:10.1029/2008GL034767, 2008.

164. Hu, Y.H., X.H. Deng, M. Zhou, R.X. Tang, H. Zhao, S. Fu, Z.W. Su, J.F. Wang, Z.G. Yuan, R. Nakamura, W. Baumjohann, H. Rème, C.M. Carr: Structures of magnetic null points in reconnection diffusion region: Cluster observations, *Chin. Sci. Bull.*, 53, 1880-1886, doi:10.1007/s11434-008-0173-0, 2008.
165. Juusola, L., O. Amm, H.U. Frey, K. Kauristie, R. Nakamura, C.J. Owen, V. Sergeev, J.A. Slavin, A. Walsh: Ionospheric signatures during a magnetospheric flux rope event, *Ann. Geophys.*, 26, 3967–3977, 2008.
166. Keika, K., R. Nakamura, W. Baumjohann, A. Runov, T. Takada, M. Volwerk, T.L. Zhang, B. Klecker, E.A. Lucek, C. Carr, H. Rème, I. Dandouras, M. André, H. Frey: Response of the inner magnetosphere and the plasma sheet to a sudden impulse, *J. Geophys. Res.*, 113, A07S35, doi:10.1029/2007JA012763, 2008.
167. Kiehas, S., V. Semenov, I. Kubyshkin, M. Kubyshkina, T. Penz, H.K. Biernat, R. Nakamura: Determination of reconnected flux via remote sensing, *Adv. Space Res.*, 41, 1292-1297, doi:10.1016/j.asr.2007.05.069, 2008.
168. Petrukovich, A.A., W. Baumjohann, R. Nakamura, A. Runov: Formation of current density profile in tilted current sheets, *Ann. Geophys.*, 26, 3669-3676, 2008.
169. Retinò, A., R. Nakamura, A. Vaivads, Y. Khotyaintsev, T. Hayakawa, K. Tanaka, S. Kasahara, M. Fujimoto, I. Shinohara, J.P. Eastwood, M. Andre, W. Baumjohann, P. Daly, E. Kronberg, N. Cornilleau-Wehrlin: Cluster observations of energetic electrons and electro-magnetic fields within a reconnecting thin current sheet in the Earth's magnetotail, *J. Geophys. Res.*, 113, A12215, doi:10.1029/2008JA013511, 2008.
170. Runov, A., I. Voronkov, Y. Asano, W. Baumjohann, M. Fujimoto, R. Nakamura, T. Takada, M. Volwerk, Z. Vörös, M. Meurant, A. Fazakerley, H. Rème, A. Balogh: Structure of the near-Earth plasma sheet during tailward flows, *Ann. Geophys.*, 26, 709-724, 2008.
171. Runov, A., V. Angelopoulos, N. Ganushkina, R. Nakamura, J. McFadden, D. Larson, I. Dandouras, K.-H. Glassmeier, C. Carr: Multi-point observations of the inner boundary of the plasma sheet during geomagnetic disturbances, *Geophys. Res. Lett.*, 35, L17S23, doi:10.1029/2008GL033982, 2008.
172. Runov, A., V. Angelopoulos, X.-Z. Zhou, I.O. Voronkov, M.V. Kubyshkina, R. Nakamura, C.W. Carlson, H.U. Frey, J. McFadden, D. Larson, S.B. Mende, K.-H. Glassmeier, U. Auster, H.J. Singer: Multipoint in situ and ground-based observations during auroral intensifications, *J. Geophys. Res.*, 113, A00C07, doi:10.1029/2008JA013493, 2008.
173. Runov, A., W. Baumjohann, R. Nakamura, V.A. Sergeev, O. Amm, H. Frey, I. Alexeev, A.N. Fazakerley, C.J. Owen, E. Lucek, M. André, A. Vaivads, I. Dandouras, B. Klecker: Observations of an active thin current sheet, *J. Geophys. Res.*, 113, A07S27, doi:10.1029/2007JA012685, 2008.
174. Sergeev, V., M. Kubyshkina, I. Alexeev, A. Fazakerley, C. Owen, W. Baumjohann, R. Nakamura, A. Runov, Z. Vörös, T.L. Zhang, V. Angelopoulos, J.-A. Sauvaud, P. Daly, J.B. Cao, E. Lucek: Study of near-Earth reconnection events with Cluster and Double Star, *J. Geophys. Res.*, 113, A07S36, doi:10.1029/2007JA012902, 2008.
175. Sharma, A.S., R. Nakamura, A. Runov, E.E. Grigorenko, H. Hasegawa, M. Hoshino, P. Louarn, C.J. Owen, A. Petrukovich, J.-A. Sauvaud, V.S. Semenov, V.A. Sergeev, J.A. Slavin, B.U.Ö. Sonnerup, L.M. Zelenyi, G. Fruit, S. Haaland, H. Malova, K. Snekvik: Transient and localized processes in the magnetotail: a review, *Ann. Geophys.*, 26, 955–1006, 2008.

176. Snekvik, K., R. Nakamura, N. Østgaard, S. Haaland, A. Retinò: The Hall current system revealed as a statistical significant pattern during fast flows, *Ann. Geophys.*, 26, 3429–3437, 2008.
177. Takada, T., R. Nakamura, L. Juusola, O. Amm, W. Baumjohann, M. Volwerk, A. Matsuoka, B. Klecker, K. Snekvik, C.J. Owen, A.N. Fazakerley, H.U. Frey, H. Rème, E.A. Lucek, C. Carr: Local field-aligned currents in the magnetotail and ionosphere as observed by a Cluster, Double Star, and MIRACLE conjunction, *J. Geophys. Res.*, 113, A07S20, doi:10.1029/2007JA012759, 2008.
178. Takada, T., R. Nakamura, Y. Asano, W. Baumjohann, A. Runov, M. Volwerk, T.L. Zhang, Z. Vörös, K. Keika, B. Klecker, H. Rème, E.A. Lucek, C. Carr, H.U. Frey: Plasma sheet oscillations and their relation to substorm development: Cluster and double star TC1 case study, *Adv. Space Res.*, 41, 1585-1592, doi:10.1016/j.asr.2007.04.008, 2008.
179. Volwerk, M., A.T.Y. Lui, M. Lester, A.P. Walsh, I. Alexeev, X. Cao, M.W. Dunlop, A.N. Fazakerley, A. Grocott, L. Kistler, X. Lun, C. Mouikis, Z. Pu, C. Shen, J.K. Shi, M.G.G.T. Taylor, W. Baumjohann, R. Nakamura, A. Runov, Z. Vörös, T.L. Zhang, T. Takada, H. Rème, B. Klecker, C.M. Carr: Magnetotail dipolarization and associated current systems observed by Cluster and Double Star, *J. Geophys. Res.*, 113, A08S90, doi:10.1029/2007JA012729, 2008.
180. Volwerk, M., R. Nakamura, W. Baumjohann, T. Uozumi, K. Yumoto, A. Balogh: Tailward propagation of Pi2 waves in the Earth's magnetotail lobe, *Ann. Geophys.*, 26, 4023–4030, 2008.
181. Volwerk, M., T.L. Zhang, K.H. Glassmeier, A. Runov, W. Baumjohann, A. Balogh, H. Rème, B. Klecker, C. Carr: Study of waves in the magnetotail region with Cluster and DSP, *Adv. Space Res.*, 41, 1593-1597, doi:10.1016/j.asr.2007.04.005, 2008.
182. Vörös, Z., R. Nakamura, V. Sergeev, W. Baumjohann, A. Runov, T.L. Zhang, M. Volwerk, T. Takada, D. Jankovicova, E. Lucek, H. Rème: Study of reconnection-associated multiscale fluctuations with Cluster and Double Star, *J. Geophys. Res.*, 113, A07S29, doi:10.1029/2007JA012688, 2008.
183. Apatenkov, S.V., T.M. Sugak, V.A. Sergeev, M.A. Shukhtina, R. Nakamura, W. Baumjohann, P. Daly: Radial propagation velocity of energetic particle injections according to measurements onboard the Cluster satellites, *Cosmic Res.*, 47, 22-28, doi:10.1134/S0010952509010031, 2009.
184. Artemyev, A.V., A.A. Petrukovich, L.M. Zelenyi, R. Nakamura, H.V. Malova, V.Y. Popov: Thin embedded current sheets: Cluster observations of ion kinetic structure and analytical models, *Ann. Geophys.*, 27, 4075–4087, 2009.
185. Constantinescu, O.D., K.-H. Glassmeier, F. Plaschke, U. Auster, V. Angelopoulos, W. Baumjohann, K.-H. Fornacon, E. Georgescu, D. Larson, W. Magnes, J.P. McFadden, R. Nakamura, Y. Narita: THEMIS observations of duskside compressional Pc5 waves, *J. Geophys. Res.*, 114, A00C25, doi:10.1029/2008JA013519, 2009.
186. Deng, X.H., M. Zhou, S.Y. Li, W. Baumjohann, M. Andre, N. Cornilleau, O. Santolik, D.I. Pontin, H. Rème, E. Lucek, A.N. Fazakerley, P. Decreau, P. Daly, 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, 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.
187. Juusola, L., R. Nakamura, O. Amm, K. Kauristie: Conjugate ionospheric equivalent currents during bursty bulk flows, *J. Geophys. Res.*, 114, A04313, doi:10.1029/2008JA013908, 2009.

188. Keika, K., R. Nakamura, M. Volwerk, V. Angelopoulos, W. Baumjohann, A. Retinò, M. Fujimoto, J.W. Bonnell, H.J. Singer, H.U. Auster, J.P. McFadden, D. Larson, I. Mann, Observations of plasma vortices in the vicinity of flow-braking: A case study, *Ann. Geophys.*, 27, 3009-3017, 2009.
189. Keika, K., R. Nakamura, W. Baumjohann, V. Angelopoulos, K. Kabin, K.H. Glassmeier, D.G. Sibeck, W. Magnes, H.U. Auster, K.H. Fornacon, J.P. McFadden, C.W. Carlson, E.A. Lucek, C.M. Carr, I. Dandouras, R. Rankin, Deformation and evolution of solar wind discontinuities through their interactions with the Earth's bow shock, *J. Geophys. Res.*, 114, A00C26, doi:10.1029/2008JA013481, 2009.
190. Keika, K., R. Nakamura, W. Baumjohann, V. Angelopoulos, P.J. Chi, K.H. Glassmeier, M. Fillingim, W. Magnes, H.U. Auster, K.H. Fornacon, G.D. Reeves, K. Yumoto, E.A. Lucek, C.M. Carr, I. Dandouras, Substorm expansion triggered by a sudden impulse front propagating from the dayside magnetopause, *J. Geophys. Res.*, 114, A00C24, doi:10.1029/2008JA013445, 2009.
191. Kiehas, S.A., V.S. Semenov, H.K. Biernat, V.V. Ivanova, R. Nakamura, W. Baumjohann, Estimating the magnetic energy inside traveling compression regions, *Ann. Geophys.*, 27, 1969–1978, 2009.
192. Kiehas, S.A., V.S. Semenov, M.V. Kubyshkina, V. Angelopoulos, R. Nakamura, K. Keika, V.V. Ivanova, H.K. Biernat, W. Baumjohann, S. Mende, W. Magnes, U. Auster, K.-H. Fornacon, D. Larson, C.W. Carlson, J. Bonnell, J. McFadden: First application of a Petschek-type reconnection model with time varying reconnection rate to THEMIS observations, *J. Geophys. Res.*, 114, A00C20, doi:10.1029/2008JA013528, 2009.
193. Ma, Y.D., J.B. Cao, R. Nakamura, T.L. Zhang, H. Reme, I. Dandouras, E. Lucek, M. Dunlop: Statistical analysis of earthward flow bursts in the inner plasma sheet during substorms, *J. Geophys. Res.*, 114, A07215, doi:10.1029/2009JA014275, 2009.
194. Möstl, C., C.J. Farrugia, H.K. Biernat, S.A. Kiehas, R. Nakamura, V.V. Ivanova, Y. Khotyaintsev: The structure of an earthward propagating magnetic flux rope early in its evolution: Comparison of methods, *Ann. Geophys.*, 27, 2215–2224, 2009.
195. Petrukovich, A.A., W. Baumjohann, R. Nakamura, H. Rème: Tailward and earthward flow onsets observed by Cluster in a thin current sheet, *J. Geophys. Res.*, 114, A09203, doi:10.1029/2009JA014064, 2009.
196. Plaschke, F., K.-H. Glassmeier, H.U. Auster, V. Angelopoulos, O.D. Constantinescu, K.-H. Fornacon, E. Georgescu, W. Magnes, J.P. McFadden, R. Nakamura: Statistical study of the magnetopause motion: First results from THEMIS, *J. Geophys. Res.*, 114, A00C10, doi:10.1029/2008JA013423, 2009.
197. Schwartz, S.J., T. Horbury, C. Owen, W. Baumjohann, R. Nakamura, P. Canu, A. Roux, F. Sahraoui, P. Louarn, J.-A. Sauvaud, J.-L. Pinçon, A. Vaivads, M.F. Marcucci, A. Anastasiadis, M. Fujimoto, P. Escoubet, M. Taylor, S. Eckersley, E. Allouis, M.-C. Perkinson: Cross-scale: multi-scale coupling in space plasmas, *Exp. Astron.*, 23, 1001–1015, doi:10.1007/s10686-008-9085-x, 2009.



198. Sergeev, V., V. Angelopoulos, S. Apatenkov, J. Bonnell, R. Ergun, R. Nakamura, J. McFadden, D. Larson, A. Runov: Kinetic structure of the sharp injection/dipolarization front in the flow-braking region, *Geophys. Res. Lett.*, 36, L21105, doi:10.1029/2009GL040658, 2009.
199. Zelenyi, L.M., A.V. Artemyev, A.A. Petrukovich, R. Nakamura, H.V. Malova, V.Y. Popov: Low frequency eigenmodes of thin anisotropic current sheets and Cluster observations, *Ann. Geophys.*, 27, 861-868, 2009.
200. Agapitov, O., K-H Glassmeier, F. Plaschke, H-U. Auster, D. Constantinescu, V. Angelopoulos, W. Magnes, R. Nakamura, C. W. Carlson, S. Frey, and J. P. McFadden, Surface waves and field line resonances: A THEMIS case study, *J. Geophys. Res.*, 114, A00C27, doi:10.1029/2008JA013553, 2009.
201. Baumjohann, W., A. Matsuoka, W. Magnes, K.-H. Glassmeier, R. Nakamura, H. Biernat, M. Delva, K. Schwingenschuh, T.L. Zhang, H.-U. Auster, K.-H. Fornacon, I. Richter, A. Balogh, P. Cargill, C. Carr, M. Dougherty, T.S. Horbury, E.A. Lucek, F. Tohyama, T. Takahashi, M. Tanaka, T. Nagai, H. Tsunakawa, M. Matsushima, H. Kawano, A. Yoshikawa, H. Shibuya, T. Nakagawa, M. Hoshino, Y. Tanaka, R. Kataoka, B.J. Anderson, C.T. Russell, U. Motschmann, M. Shinohara: Magnetic field investigation of Mercury's magnetosphere and the inner heliosphere by MMO/MGF, *Planet. Space Sci.*, 58, 279-286, doi:10.1016/j.pss.2008.05.019, 2010.
202. Milillo, A., M. Fujimoto, E. Kallio, S. Kameda, F. Leblanc, Y. Narita, G. Cremonese, H. Laakso, M. Laurenza, S. Massetti, S. McKenna-Lawlor, A. Mura, R. Nakamura, Y. Omura, D.A. Rothery, K. Seki, M. Storini, P. Wurz, W. Baumjohann, E. Bunce, Y. Kasaba, J. Helbert, A. Sprague: The Bepi-Colombo mission: An outstanding tool for investigating the Hermean environment, *Planet. Space Sci.*, 58, 40-60, doi:10.1016/j.pss.2008.06.005, 2010.
203. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Proton velocity distribution in thin current sheets: Cluster observations and theory of transient trajectories, *J. Geophys. Res.*, 115, A12255, doi:10.1029/2010JA015702, 2010.
204. Asano, Y., I. Shinohara, A. Retinò, P.W. Daly, E.A. Kronberg, T. Takada, R. Nakamura, Y.V. Khotiantsev, A. Vaivads, T. Nagai, W. Baumjohann, A.N. Fazakerley, C.J. Owen, Y. Miyashita, E.A. Lucek, H. Rème: Electron acceleration signatures in the magnetotail associated with substorms, *J. Geophys. Res.*, 115, A05215, doi:10.1029/2009JA014587, 2010.
205. Baumjohann, W., R. Nakamura, R.A. Treumann: Magnetic guide field generation in collisionless current sheets, *Ann. Geophys.*, 28, 789-793, doi:10.5194/angeo-28-789-2010, 2010.
206. Dubyagin, S.V., V.A. Sergeev, S.V. Apatenkov, V. Angelopoulos, R. Nakamura, J. McFadden, D. Larson, J. Bonnell: Pressure and entropy changes in the flow-braking region during magnetic field dipolarization, *J. Geophys. Res.*, 115, A10225, doi:10.1029/2010JA015625, 2010.
207. Frey, H.U., O. Amm, C.C. Chaston, S. Fu, G. Haerendel, J. Juusola, T. Karlsson, B. Lanchester, R. Nakamura, N. Ostgaard, T. Sakanoi, E. Séran, D. Whiter, J. Weygand, K. Asamura, M. Hirahara: Small and meso-scale properties of a substorm onset auroral arc, *J. Geophys. Res.*, 115, A10209, doi:10.1029/2010JA015537, 2010.
208. Glassmeier, K.-H., H.U. Auster, D. Heyner, K. Okrafka, C. Carr, G. Berghofer, B.J. Anderson, A. Balogh, W. Baumjohann, P. Cargill, U. Christensen, M. Delva, M. Dougherty, K.H. Fornacon, T.S. Horbury, E.A. Lucek, W. Magnes, M. Manda, A. Matsuoka, M. Matsushima, U. Motschmann, R. Nakamura, Y. Narita, H. O Brian, I. Richter, K. Schwingenschuh, H. Shibuya, J.A. Slavin, C. Sotin,

- B. Stoll, H. Tsunakawa, S. Vennerstrom, J. Vogt, T.L. Zhang: The fluxgate magnetometer of the BepiColombo planetary orbiter, *Planet. Space Sci.*, 58, 287-299, doi:10.1016/j.pss.2008.06.018, 2010.
209. Nakajima, A., K. Shiokawa, K. Seki, R. Nakamura, K. Keika, W. Baumjohann, T. Takada, J.P. McFadden, C.W. Carlson, A.N. Fazakerley, H. Rème, I. Dandouras, R.J. Strangeway, O. Le Contel, N. Cornilleau-Wehrin, K.H. Yearby: Simultaneous FAST and Double Star TC1 observations of broadband electrons during a storm time substorm, *J. Geophys. Res.*, 115, A07217, doi:10.1029/2009JA014907, 2010.
210. Panov, E.V., R. Nakamura, W. Baumjohann, V. Angelopoulos, A.A. Petrukovich, A. Retinò, M. Volwerk, T. Takada, K.-H. Glassmeier, J.P. McFadden, D. Larson: Multiple overshoot and rebound of a bursty bulk flow, *Geophys. Res. Lett.*, 37, L08103, doi:10.1029/2009GL041971, 2010.
211. Panov, E.V., R. Nakamura, W. Baumjohann, V.A. Sergeev, A.A. Petrukovich, V. Angelopoulos, M. Volwerk, A. Retinò, T. Takada, K.-H. Glassmeier, J.P. McFadden, D. Larson: Plasma sheet thickness during a bursty bulk flow reversal, *J. Geophys. Res.*, 115, A05213, doi:10.1029/2009JA014743, 2010.
212. Sergeev, V.A., T.A. Kornilova, I.A. Kornilov, V. Angelopoulos, M.V. Kubyshkina, M. Fillingim, R. Nakamura, J.P. McFadden, D. Larson: Auroral signatures of the plasma injection and dipolarization in the inner magnetosphere, *J. Geophys. Res.*, 115, A02202, doi:10.1029/2009JA0114522, 2010.
213. Treumann, R.A., R. Nakamura, W. Baumjohann: Collisionless reconnection: Mechanism of self-ignition in thin plane homogenous current sheets, *Ann. Geophys.*, 28, 1935-1943, doi:10.5194/angeo-28-1935-2010, 2010.
214. Zelenyi, L.M., V. Artemyev, K.V. Malova, A.A. Petrukovich, R. Nakamura: Metastability of current sheets, *Phys.-Usp.*, 53, 933-941, 2010.
215. Zhang, T.L., W. Baumjohann, J. Du, R. Nakamura, R. Jarvinen, E. Kallio, A.M. Du, M. Balikhin, J.G. Luhmann, C.T. Russell: Hemispheric asymmetry of the magnetic field wrapping pattern in the Venusian magnetotail, *Geophys. Res. Lett.*, 37, L14202, doi:10.1029/2010GL044020, 2010.
216. Amm, O., R. Nakamura, T. Takada, K. Kauristie, H.U. Frey, C.J. Owen, A. Aikio, R. Kuula: Observations of an auroral streamer in a double oval configuration, *Ann. Geophys.*, 29, 710-716, doi:10.5194/angeo-29-701-2011, 2011.
217. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Cluster statistics of thin current sheets in the Earth magnetotail: Specifics of the dawn flank, proton temperature profiles and electrostatic effects, *J. Geophys. Res.*, 116, A09233, doi:10.1029/2011JA016801, 2011.
218. Artemyev, A.V., L.M. Zelenyi, A.A. Petrukovich, R. Nakamura: Hot electrons as tracers of large - scale structure of magnetotail current sheets, *Geophys. Res. Lett.*, 38, L14102, doi:10.1029/2011GL047979, 2011.
219. Artemyev, A.V., W. Baumjohann, A.A. Petrukovich, R. Nakamura, I. Dandouras, A. Fazakerley: Proton/electron temperature ratio in the magnetotail, *Ann. Geophys.*, 29, 2253-2257, doi:10.5194/angeo-29-2253-2011, 2011.
220. Birn, J., R. Nakamura, E.V. Panov, M. Hesse: Bursty bulk flows and dipolarization in MHD simulations of magnetotail reconnection, *J. Geophys. Res.*, 116, A01210, doi:10.1029/2010JA016083, 2011.

221. Du, A.M., R. Nakamura, T.L. Zhang, E.V. Panov, W. Baumjohann, H. Luo, W.Y. Xu, Q.M. Lu, M. Volwerk, A. Retinò, B. Zieger, V. Angelopoulos, K.-H. Glassmeier, J.P. McFadden, D. Larson: Fast tailward flows in the plasma sheet boundary layer during a substorm on 9 March 2008: THEMIS observations, *J. Geophys. Res.*, 116, A03216, doi:10.1029/2010JA015969, 2011.
222. Du, J., T.L. Zhang, R. Nakamura, C. Wang, W. Baumjohann, A.M. Du, M. Volwerk, K.-H. Glassmeier, J.P. McFadden: Mode conversion between Alfvén and slow waves observed in the magnetotail by THEMIS, *Geophys. Res. Lett.*, 38, L07101, doi:10.1029/2011GL046989, 2011.
223. Dubyagin, S., V. Sergeev, S. Apatenkov, V. Angelopoulos, A. Runov, R. Nakamura, W. Baumjohann, J. McFadden, D. Larson: Can flow bursts penetrate into the inner magnetosphere?, *Geophys. Res. Lett.*, 38, L08102, doi:10.1029/2011GL047016, 2011.
224. Nishino, M.N., H. Hasegawa, M. Fujimoto, Y. Saito, T. Mukai, I. Dandouras, H. Rème, A. Retinò, R. Nakamura, E. Lucek, S.J. Schwartz: A case study of Kelvin–Helmholtz vortices on both flanks of the Earth’s magnetotail, *Planet. Space Sci.*, 59, 502-509, doi:10.1016/j.pss.2010.03.011, 2011.
225. Panov, E.V., A.V. Artemyev, R. Nakamura, W. Baumjohann: Two types of tangential magnetopause current sheets: Cluster observations and theory, *J. Geophys. Res.*, 116, A12204, doi:10.1029/2011JA016860, 2011.
226. Petrukovich, A.A., A.V. Artemyev, H.V. Malova, V.Y. Popov, R. Nakamura, L.M. Zelenyi: Embedded current sheets in the Earth’s magnetotail, *J. Geophys. Res.*, 116, A00I25, doi:10.1029/2010JA015749, 2011.
227. Runov, A., V. Angelopoulos, M. Sitnov, V.A. Sergeev, R. Nakamura, Y. Nishimura, H.U. Frey, J.P. McFadden, D. Larson, J. Bonnell, K.-H. Glassmeier, U. Auster, M. Connors, C.T. Russell, H.J. Singer: Dipolarization fronts in the magnetotail plasma sheet, *Planet. Space Sci.*, 59, 517-525, doi:10.1016/j.pss.2010.06.006, 2011.
228. Schmid, D., M. Volwerk, R. Nakamura, W. Baumjohann, M.F. Heyn: A statistical and event study of magnetotail dipolarization fronts, *Ann. Geophys.*, 29, 1537–1547, doi:10.5194/angeo-29-1537-2011, 2011.
229. Schwartz, S.J., P. Hellinger, S. Bale, C. Owen, R. Nakamura, A. Vaivads, L. Sorriso-Valvo, W. Liu, R. Wimmer-Schweingruber, M. Fujimoto, I. Mann: Preface (Special Issue: Cross-Scale Coupling in Plasmas), *Planet. Space Sci.*, 59, 447-448, doi:10.1016/j.pss.2011.02.006, 2011.
230. Sergeev, V., V. Angelopoulos, M. Kubyshkina, E. Donovan, X.-Z. Zhou, A. Runov, H. Singer, J. McFadden, R. Nakamura: Substorm growth and expansion onset as observed with ideal ground - spacecraft THEMIS coverage, *J. Geophys. Res.*, 116, A00I26, doi:10.1029/2010JA015689, 2011.
231. 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 Hall magnetic field for reconnection: Hall MHD reconstruction results from Cluster observations, *J. Geophys. Res.*, 116, doi:10.1029/2011JA016991, 2011.

232. Treumann, R.A., R. Nakamura, W. Baumjohann: Downward auroral currents from the reconnection Hall-region, *Ann. Geophys.*, 29, 679-685, doi:10.5194/angeo-29-679-2011, 2011.
233. Treumann, R.A., R. Nakamura, W. Baumjohann: A model of so-called “Zebra” emissions in solar flare radio burst continua, *Ann. Geophys.*, 29, 1673-1682, doi:10.5194/angeo-29-1673-2011, 2011.
234. Treumann, R.A., R. Nakamura, W. Baumjohann: Flux quanta, magnetic field lines, merging – some sub-microscale relations of interest in space plasma physics, *Ann. Geophys.*, 29, 1121–1127, doi:10.5194/angeo-29-1121-2011, 2011.
235. Treumann, R.A., R. Nakamura, W. Baumjohann: Relativistic transformation of phase-space distributions, *Ann. Geophys.*, 29, 1259–1265, doi:10.5194/angeo-29-1259-2011, 2011.
236. Treumann, R.A., R. Nakamura, W. Baumjohann: Corrigendum to “Downward auroral currents from the reconnection Hall-region”, published in *Ann. Geophys.*, 29, 679–685, 2011, *Ann. Geophys.*, 29, 1061, doi:10.5194/angeo-29-1061-2011, 2011.
237. Treumann, R.A., R. Nakamura, W. Baumjohann: Relativistic transformation of phase-space distributions, *Ann. Geophys.*, 29, 1259–1265, doi:10.5194/angeo-29-1259-2011, 2011.
238. Zieger, B., A. Retinò, R. Nakamura, W. Baumjohann, A. Vaivads, 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.
239. Alexandrova, A., R. Nakamura, V. S. Semenov, I. V. Kubyshkin, S. Apatenkov, E. V. Panov, D. Korovinskiy, H. Biernat, W. Baumjohann, K.-H. Glassmeier and J. P. McFadden, Remote estimation of reconnection parameters in the Earth’s magnetotail: model and observations, *Ann. Geophys.*, 30, 1727–1741, doi:10.5194/angeo-30-1727-2012, 2012.
240. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Adiabatic electron heating in the magnetotail current sheet: Cluster observations and analytical models, *J. Geophys. Res.*, 117, A06219, doi:10.1029/2012JA017513, 2012.
241. Haerendel, G., H. U. Frey, C. C. Chaston, O. Amm, L. Juusola, R. Nakamura, E. Seran, and J. M. Weygand, Birth and life of auroral arcs embedded in the evening auroral oval convection: A critical comparison of observations with theory, *J. Geophys. Res.*, 117, A12220, doi:10.1029/2012JA018128, 2012.
242. Nakamura, T.K.M., R. Nakamura, A. Alexandrova, Y. Kubota, T. Nagai: Hall magnetohydrodynamic effects for three-dimensional magnetic reconnection with finite width along the direction of the current, *J. Geophys. Res.*, 117, A03220, doi:10.1029/2011JA017006, 2012.
243. Panov, E.V., R. Nakamura, W. Baumjohann, M.G. Kubyshkina, A.V. Artemyev, V.A. Sergeev, A.A. Petrukovich, V. Angelopoulos, K.-H. Glassmeier, J.P. McFadden, D. Larson: Kinetic ballooning/interchange instability in a bent plasma sheet, *J. Geophys. Res.*, 117, A06228, doi:10.1029/2011JA017496, 2012.
244. Panov, E.V., V.A. Sergeev, P.L. Pritchett, F.V. Coroniti, R. Nakamura, W. Baumjohann, V. Angelopoulos, H.U. Auster, J.P. McFadden: Observations of kinetic ballooning/interchange

- instability signatures in the magnetotail, *Geophys. Res. Lett.*, 39, L08110, doi:10.1029/2012GL051668, 2012.
245. Sergeev, V., Y. Nishimura, M. Kubyshkina, V. Angelopoulos, R. Nakamura, H. Singer: Magnetospheric location of the equatorward prebreakup arc, *J. Geophys. Res.*, 117, A01212, doi:10.1029/2011JA017154, 2012.
246. Sergeev, V.A., V. Angelopoulos, R. Nakamura: Recent advances in understanding substorm dynamics, *Geophys. Res. Lett.*, 39, L05101, doi:10.1029/2012GL050859, 2012.
247. Sergeev, V.A., Y. Nishimura, M. Kubyshkina, V. Angelopoulos, R. Nakamura, H. Singer: Magnetospheric location of the equatorward prebreakup arc, *J. Geophys. Res.*, 117, A01212, doi:10.1029/2011JA017154, 2012.
248. Sergeev, V. A., I. A. Chernyaev, S. V. Dubyagin, Y. Miyashita, V. Angelopoulos, P. D. Boakes, R. Nakamura, and M. G. Henderson, Energetic particle injections to geostationary orbit: Relationship to flow bursts and magnetospheric state, *J. Geophys. Res.*, 117, A10207, doi:10.1029/2012JA017773, 2012.
249. Teh, W.-L., R. Nakamura, M. Fujimoto, E.A. Kronberg, A.N. Fazakerley, P.W. Daly, W. Baumjohann: Electron dynamics in the reconnection ion diffusion region, *J. Geophys. Res.*, 117, A12225, doi:10.1029/2012JA017896, 2012.
250. Tian, A.M., Q.G. Zong, T.L. Zhang, R. Nakamura, A.M. Du, W. Baumjohann, K.H. Glassmeier, M. Volwerk, M. Hartinger, Y.F. Wang, J. Du, B. Yang, X.Y. Zhang, E. Panov: Dynamics of long-period ULF waves in the plasma sheet: Coordinated space and ground observations, *J. Geophys. Res.*, 117, A03211, doi:10.1029/2011JA016551, 2012.
251. Vaivads, A., G. Andersson, S.D. Bale, C.M. Cully, J. De Keyser, M. Fujimoto, S. Grahn, S. Haaland, H. Ji, Y.V. Khotyaintsev, A. Lazarian, B. Lavraud, I.R. Mann, R. Nakamura, T.K.M. Nakamura, Y. Narita, A. Retinò, F. Sahraoui, A. Schekochihin, S.J. Schwartz, I. Shinohara, L. Sorriso-Valvo: EIDOSCOPE: Particle acceleration at plasma boundaries, *Exp. Astron.*, 33, 491–527, doi:10.1007/s10686-011-9233-6, 2012.
252. Wang, R.S., R. Nakamura, Q. Lu, A. Du, T.L. Zhang, W. Baumjohann, Y.V. Khotyaintsev, M. Volwerk, M. André, M. Fujimoto, T.K.M. Nakamura, A.N. Fazakerley, J. Du, W.L. Teh, E.V. Panov, B. Zieger, Y. Pan, S. Lu: Asymmetry in the current sheet and secondary magnetic flux ropes during guide field magnetic reconnection, *J. Geophys. Res.*, 117, A07223, doi:10.1029/2011JA017384, 2012.
253. Zhang, T.L., Q.M. Lu, W. Baumjohann, C.T. Russell, A. Fedorov, S. Barabash, A.J. Coates, A.M. Du, J.B. Cao, R. Nakamura, W.L. Teh, R.S. Wang, X.K. Dou, S. Wang, K.H. Glassmeier, H.U. Auster, M. Balikhin: Magnetic reconnection in the near Venusian magnetotail, *Science*, 336, 567-570, doi:10.1126/science.1217013, 2012.
254. Zhang, T.L., W. Baumjohann, W.L. Teh, R. Nakamura, C.T. Russell, J.G. Luhmann, K.H. Glassmeier, E. Dubinin, H.Y. Wei, A.M. Du, Q.M. Lu, S. Wang, M. Balikhin: Giant flux ropes observed in the magnetized ionosphere at Venus, *Geophys. Res. Lett.*, 39, L23103, doi:10.1029/2012GL054236, 2012.

255. Artemyev, A.V., A.A. Petrukovich, A.G. Frank, R. Nakamura, L.M. Zelenyi: Intense current sheets in the magnetotail: Peculiarities of electron physics, *J. Geophys. Res.*, 118, 2789-2799, doi:10.1002/jgra.50297, 2013.
256. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Profiles of electron temperature and  $B_z$  along Earth's magnetotail, *Ann. Geophys.*, 31, 1109-1114, doi:10.5194/angeo-31-1109-2013, 2013.
257. Birn, J., M. Hesse, R. Nakamura, S. Zaharia: Particle acceleration in dipolarization events, *J. Geophys. Res.*, 118, 1960-1971, doi:10.1002/jgra.50132, 2013.
258. Birn, J., R. Nakamura, M. Hesse: On the propagation of blobs in the magnetotail: MHD simulations, *J. Geophys. Res.*, 118, 5497-5505, doi:10.1002/jgra.50521, 2013.
259. Juusola, L., M. Kubyshkina, R. Nakamura, T. Pitkanen, O. Amm, K. Kauristie, N. Partamies, H. Reme, K. Snekvik, and D. Whiter, Ionospheric signatures of a plasma sheet rebound flow during a substorm onset, *J. Geophys. Res. Space Physics*, 118, doi:10.1029/2012JA018132, 2013.
260. Lu, H.Y., J.B. Cao, M. Zhou, H.S. Fu, R. Nakamura, T.L. Zhang, Y.V. Khotyaintsev, Y.D. Ma, D. Tao: Electric structure of dipolarization fronts associated with interchange instability in the magnetotail, *J. Geophys. Res.*, 118, 6019-6025, doi:10.1002/jgra.50571, 2013.
261. Nagai, T., I. Shinohara, S. Zenitani, R. Nakamura, T.K.M. Nakamura, M. Fujimoto, Y. Saito, T. Mukai: Three-dimensional structure of magnetic reconnection in the magnetotail from Geotail observations, *J. Geophys. Res.*, 118, 1667-1678, doi:10.1002/jgra.50247, 2013.
262. Nagai, T., S. Zenitani, I. Shinohara, R. Nakamura, M. Fujimoto, Y. Saito, T. Mukai: Ion and electron dynamics in the ion-electron decoupling region of magnetic reconnection with Geotail observations, *J. Geophys. Res.*, 118, 7703-7713, doi:10.1002/2013JA019135, 2013.
263. Narita, Y., R. Nakamura, W. Baumjohann: Cluster as current sheet surveyor in the magnetotail, *Ann. Geophys.*, 31, 1605-1610, doi:10.5194/angeo-31-1605-2013, 2013.
264. Panov, E.V., A.V. Artemyev, W. Baumjohann, R. Nakamura, V. Angelopoulos: Transient electron precipitation during oscillatory BBF braking: THEMIS observations and theoretical estimates, *J. Geophys. Res.*, 118, 3065-3076, doi:10.1002/jgra.50203, 2013.
265. Panov, E.V., M.V. Kubyshkina, R. Nakamura, W. Baumjohann, V. Angelopoulos, V.A. Sergeev, A.A. Petrukovich: Oscillatory flow braking in the magnetotail: THEMIS statistics, *Geophys. Res. Lett.*, 40, 2505-2510, doi:10.1002/grl.50407, 2013.
266. Panov, E.V., W. Baumjohann, R. Nakamura, O. Amm, M.V. Kubyshkina, K.-H. Glassmeier, J.M. Weygand, V. Angelopoulos, A.A. Petrukovich, V.A. Sergeev: Ionospheric response to oscillatory flow braking in the magnetotail, *J. Geophys. Res.*, 118, 1529-1544, doi:10.1002/jgra.50190, 2013.
267. Petrukovich, A.A., A.V. Artemyev, R. Nakamura, E.V. Panov, W. Baumjohann: Cluster observations of  $\delta B_z / \delta x$  during growth phase magnetotail stretching intervals, *J. Geophys. Res.*, 118, 5720-5730, doi:10.1002/jgra.50550, 2013.
268. Teh, W.-L., R. Nakamura, W. Baumjohann: Magnetic field topology of the plasma sheet boundary layer, *J. Geophys. Res.*, 118, 4059-4065, doi:10.1002/jgra.50435, 2013.
269. Volwerk, M., N. Andre, C.S. Arridge, C.M. Jackman, X. Jia, S.E. Milan, A. Radioti, M.F. Vogt, A.P. Walsh, R. Nakamura, A. Masters, C. Forsyth: Comparative magnetotail flapping: An overview of

- selected events at Earth, Jupiter and Saturn, *Ann. Geophys.*, 31, 817-833, doi:10.5194/angeo-31-817-2013, 2013.
270. Wang, R., A. Du, R. Nakamura, Q. Lu, Y.V. Khotyaintsev, M. Volwerk, T.L. Zhang, E.A. Kronberg, P.W. Daly, A.N. Fazakerley: Observation of multiple sub-cavities adjacent to single separatrix, *Geophys. Res. Lett.*, 40, 2511-2517, doi:10.1002/grl.50537, 2013.
271. Wu, M.Y., M. Volwerk, Q.M. Lu, Z. Vörös, R. Nakamura, T.L. Zhang: The proton temperature anisotropy associated with bursty bulk flows in the magnetotail, *J. Geophys. Res.*, 118, 4875-4883, doi:10.1002/jgra.50451, 2013.
272. Artemyev, A.V., A.P. Walsh, A.A. Petrukovich, W. Baumjohann, R. Nakamura, A.N. Fazakerley: Electron pitch angle/energy distribution in the magnetotail, *J. Geophys. Res.*, 119, 7214-7227, doi:10.1002/2014JA020350, 2014.
273. Boakes, P.D., R. Nakamura, M. Volwerk, S.E. Milan: ECLAT Cluster spacecraft magnetotail plasma region identifications (2001-2009), *Dataset Papers in Science*, 2014, 684305, doi:10.1155/2014/684305, 2014.
274. Forsyth, C., C.E.J. Watt, I.J. Rae, A.N. Fazakerley, N.M.E. Kalmoni, M.P. Freeman, P.D. Boakes, R. Nakamura, I. Dandouras, L.M. Kistler, C.M. Jackman, J.C. Coxon, C.M. Carr: Increases in plasma sheet temperature with solar wind driving during substorm growth phases, *Geophys. Res. Lett.*, 41, 8713-8721, doi:10.1002/2014GL062400, 2014.
275. Keiling, A., O. Marghitu, J. Vogt, O. Amm, C. Bunescu, V. Constantinescu, H. Frey, M. Hamrin, T. Karlsson, R. Nakamura, H. Nilsson, J. Semeter, E. Sorbalo: Magnetosphere-ionosphere coupling of global Pi2 pulsations, *J. Geophys. Res.*, 119, 2717-2739, doi:10.1002/2013JA019085, 2014.
276. Panov, E.V., W. Baumjohann, M.V. Kubyshkina, R. Nakamura, V.A. Sergeev, V. Angelopoulos, K.-H. Glassmeier, A.A. Petrukovich: On the increasing oscillation period of flows at the tailward retreating flux pileup region during dipolarization, *J. Geophys. Res.*, 119, 6603-6611, doi:10.1002/2014JA020322, 2014.
277. Panov, E.V., W. Baumjohann, R. Nakamura, M.V. Kubyshkina, K.-H. Glassmeier, V. Angelopoulos, A.A. Petrukovich, V.A. Sergeev: Period and damping factor of Pi2 pulsations during oscillatory flow braking in the magnetotail, *J. Geophys. Res.*, 119, 4512-4520, doi:10.1002/2013JA019633, 2014.
278. Plaschke, F., M.G.G.T. Taylor, R. Nakamura: Alternative interpretation of results from Kelvin-Helmholtz vortex identification criteria, *Geophys. Res. Lett.*, 41, 244-250, doi:10.1002/2013GL058948, 2014.
279. Plaschke, F., R. Nakamura, H.K. Leinweber, M. Chutter, H. Vaith, W. Baumjohann, M. Steller, W. Magnes: Flux-gate magnetometer spin axis offset calibration using the electron drift instrument, *Meas. Sci. Technol.*, 25, 105008, doi:10.1088/0957-0233/25/10/105008, 2014.
280. Sergeev, V.A., I.A. Chernyaev, V. Angelopoulos, A.V. Runov, R. Nakamura: Stopping flow bursts and their role in the generation of the substorm current wedge, *Geophys. Res. Lett.*, 41, 1106-1112, doi:10.1002/2014GL059309, 2014
281. Sergeev, V.A., A.V. Nikolaev, M.V. Kubyshkina, N.A. Tsyganenko, H.J. Singer, J.V. Rodriguez, V. Angelopoulos, R. Nakamura, S.E. Milan, J.C. Coxon, B.J. Anderson, H. Korth: Event study

- combining magnetospheric and ionospheric perspectives of the substorm current wedge modeling, *J. Geophys. Res.*, 119, 9714-9728, doi:10.1002/2014JA020522, 2014.
282. Teh, W.-L., R. Nakamura, H. Karimabadi, W. Baumjohann, T.L. Zhang: Correlation of core field polarity of magnetotail flux ropes with the IMF By: Reconnection guide field dependency, *J. Geophys. Res.*, 119, 2933-2944, doi:10.1002/2013JA019454, 2014.
283. Vasko, I.Y., A.V. Artemyev, A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: The structure of strongly tilted current sheets in the Earth magnetotail, *Ann. Geophys.*, 32, 133-146, doi:10.5194/angeo-32-133-2014, 2014.
284. Vasko, I.Y., L.M. Zelenyi, A.V. Artemyev, A.A. Petrukovich, H.V. Malova, T.L. Zhang, A.O. Fedorov, V.Y. Popov, S. Barabash, R. Nakamura: The structure of the Venusian current sheet, *Planet. Space Sci.*, 96, 81-89, doi:10.1016/j.pss.2014.03.013, 2014.
285. Wang, G.Q., M. Volwerk, R. Nakamura, P. Boakes, T.L. Zhang, A. Yoshikawa, D.G. Baishev: Flapping current sheet with superposed waves seen in space and on the ground, *J. Geophys. Res.*, 119, 10078-10091, doi:10.1002/2014JA020526, 2014.
286. Wang, R., Q. Lu, A. Du, R. Nakamura, S. Lu, C. Huang, C. Liu, M. Wu: In situ observation of magnetic reconnection in the front of bursty bulk flow, *J. Geophys. Res.*, 119, 9952-9961, doi:10.1002/2014JA020335, 2014.
287. Wang, R., Q. Lu, Y.V. Khotyaintsev, M. Volwerk, A. Du, R. Nakamura, W.D. Gonzalez, X. Sun, W. Baumjohann, X. Li, T.-L. Zhang, A.N. Fazakerley, C. Huang, M. Wu: Observation of double layer in the separatrix region during magnetic reconnection, *Geophys. Res. Lett.*, 41, 4851-4858, doi:10.1002/2014GL061157, 2014.
288. Wang, R., R. Nakamura, T. Zhang, A. Du, W. Baumjohann, Q. Lu, A.N. Fazakerley: 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.
289. Alexandrova, A., R. Nakamura, V.S. Semenov, T.K.M. Nakamura: Motion of reconnection region in the Earth's magnetotail, *Geophys. Res. Lett.*, 42, 4685-4693, doi:10.1002/2015GL064421, 2015.
290. Andriopoulou, M., R. Nakamura, K. Torkar, W. Baumjohann, B. Hoelzl: Deriving plasma densities in tenuous plasma regions, with the spacecraft potential under active control, *J. Geophys. Res.*, 120, 9594-9616, doi:10.1002/2015JA021472, 2015.
291. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Statistics of intense dawn-dusk currents in the Earth's magnetotail, *J. Geophys. Res.*, 120, 3804-3820, doi:10.1002/2015JA021046, 2015.
292. Artemyev, A.V., A.A. Petrukovich, R. Nakamura, L.M. Zelenyi: Two-dimensional configuration of the magnetotail current sheet: THEMIS observations, *Geophys. Res. Lett.*, 42, 3662-3667, doi:10.1002/2015GL063994, 2015.
293. Kepko, L., R.L. McPherron, O. Amm, S. Apatenkov, W. Baumjohann, J. Birn, M. Lester, R. Nakamura, T.I. Pulkkinen, V. Sergeev: Substorm current wedge revisited, *Space Sci. Rev.*, 190, 1-46, doi:10.1007/s11214-014-0124-9, 2015.



294. Lu, H.Y., J.B. Cao, Y.S. Ge, T.L. Zhang, R. Nakamura, M.W. Dunlop: Hall and finite Larmor radius effects on the dipolarization fronts associated with interchange instability, *Geophys. Res. Lett.*, 42, 10099-10105, doi:10.1002/2015GL066556, 2015.
295. Palin, L., C. Jacquety, H. Opgenoorth, M. Connors, V. Sergeev, J.-A. Sauvaud, R. Nakamura, G.D. Reeves, H.J. Singer, V. Angelopoulos, L. Turc: Three-dimensional current systems and ionospheric effects associated with small dipolarization fronts, *J. Geophys. Res.*, 120, 3739-3757, doi:10.1002/2015JA021040, 2015.
296. Panov, E.V., R.A. Wolf, M.V. Kubyshkina, R. Nakamura, W. Baumjohann: Anharmonic oscillatory flow braking in the Earth's magnetotail, *Geophys. Res. Lett.*, 42, 3700-3706, doi:10.1002/2015GL064057, 2015.
297. Petrukovich, A., A. Artemyev, R. Nakamura, L. Zelenyi: Current sheets in the Earth magnetotail: Plasma and magnetic field structure with Cluster project observations, *Space Sci. Rev.*, 188, 311-337, doi:10.1007/s11214-014-0126-7, 2015.
298. Schmid, D., R. Nakamura, F. Plaschke, M. Volwerk, W. Baumjohann: Two states of magnetotail dipolarization fronts: A statistical study, *J. Geophys. Res.*, 120, 1096-1108, doi:10.1002/2014JA020380, 2015.
299. Teh, W.-L., T.K.M. Nakamura, R. Nakamura, W. Baumjohann, M. Abdullah: On the evolution of a magnetic flux rope: Two-dimensional MHD simulation results, *J. Geophys. Res.*, 120, 8547-8558, doi:10.1002/2015JA021619, 2015.
300. Torkar, K., R. Nakamura, M. Andriopoulou: Interdependencies between the actively controlled Cluster spacecraft potential, ambient plasma, and electric field Measurements, *IEEE Trans. Plasma Sci.*, 43, 3054-3063, doi:10.1109/TPS.2015.2422733, 2015.
301. Vasko, I.Y., A.A. Petrukovich, A.V. Artemyev, R. Nakamura, L.M. Zelenyi: Earth's distant magnetotail current sheet near and beyond lunar orbit, *J. Geophys. Res.*, 120, 8663-8680, doi:10.1002/2015JA021633, 2015.
302. Wang, G.Q., Y.S. Ge, T.L. Zhang, R. Nakamura, M. Volwerk, W. Baumjohann, A.M. Du, Q.M. Lu: A statistical analysis of Pi2-band waves in the plasma sheet and their relation to magnetospheric drivers, *J. Geophys. Res.*, 120, 6167-6175, doi:10.1002/2014JA020753, 2015.
303. Wu, M., C. Huang, Q. Lu, M. Volwerk, R. Nakamura, Z. Vörös, T.L. Zhang, S. Wang: In situ observations of multistage electron acceleration driven by magnetic reconnection, *J. Geophys. Res.*, 120, 6320-6331, doi:10.1002/2015JA021165, 2015.
304. Alexandrova, A., R. Nakamura, E.V. Panov, Y.L. Sasunov, T. Nakamura, Z. Vörös, A. Retinò, V.S. Semenov: Two interacting X lines in magnetotail: Evolution of collision between the counterstreaming jets, *Geophys. Res. Lett.*, 43, 7795-7803, doi:10.1002/2016GL069823, 2016.
305. Andriopoulou, M., R. Nakamura, K. Torkar, W. Baumjohann, R.B. Torbert, P.-A. Lindqvist, Y.V. Khotyaintsev, J. Dorelli, J.L. Burch, C.T. Russell: Study of the spacecraft potential under active control and plasma density estimates during the MMS commissioning phase, *Geophys. Res. Lett.*, 43, 4858-4864, doi:10.1002/2016GL068529, 2016.
306. Baker, D.N., A.N. Jaynes, D.L. Turner, R. Nakamura, D. Schmid, B.H. Mauk, I.J. Cohen, J.F. Fennell, J.B. Blake, R.J. Strangeway, C.T. Russell, R.B. Torbert, J.C. Dorelli, D.J. Gershman, B.L. Giles, J.L. Burch: A telescopic and microscopic examination of acceleration in the June 2015 geomagnetic

storm: Magnetospheric Multiscale and Van Allen Probes study of substorm particle injection, *Geophys. Res. Lett.*, 43, 6051-6059, doi:10.1002/2016GL069643, 2016.

307. Breuillard, H., O. Le Contel, A. Retino, A. Chasapis, T. Chust, L. Mirioni, D.B. Graham, F.D. Wilder, I. Cohen, A. Vaivads, Yu.V. Khotyaintsev, P.-A. Lindqvist, G.T. Marklund, J.L. Burch, R.B. Torbert, R.E. Ergun, K.A. Goodrich, J. Macri, J. Needell, M. Chutter, D. Rau, I. Dors, C.T. Russell, W. Magnes, R.J. Strangeway, K.R. Bromund, F. Plaschke, D. Fischer, H.K. Leinweber, B.J. Anderson, G. Le, J.A. Slavin, E.L. Kepko, W. Baumjohann, B. Mauk, S.A. Fuselier, R. Nakamura: Multispacecraft analysis of dipolarization fronts and associated whistler wave emissions using MMS data, *Geophys. Res. Lett.*, 43, 7279-7286, doi:10.1002/2016GL069188, 2016.
308. Burch, J.L., R.B. Torbert, T.D. Phan, L.-J. Chen, T.E. Moore, R.E. Ergun, J.P. Eastwood, D.J. Gershman, P.A. Cassak, M.R. Argall, S. Wang, M. Hesse, C.J. Pollock, B.L. Giles, R. Nakamura, B.H. Mauk, S.A. Fuselier, C.T. Russell, R.J. Strangeway, J.F. Drake, M.A. Shay, Yu.V. Khotyaintsev, P.-A. Lindqvist, G. Marklund, F.D. Wilder, D.T. Young, K. Torkar, J. Goldstein, J.C. Dorelli, L.A. Avanov, M. Oka, D.N. Baker, A.N. Jaynes, K.A. Goodrich, I.J. Cohen, D.L. Turner, J.F. Fennell, J.B. Blake, J. Clemmons, M. Goldman, D. Newman, S.M. Petronec, K.J. Trattner, B. Lavraud, P.H. Reiff, W. Baumjohann, W. Magnes, M. Steller, W. Lewis, Y. Saito, V. Coffey, M. Chandler: Electron-scale measurements of magnetic reconnection in space, *Science*, 352, 1189-1199, doi:10.1126/science.aaf2939, 2016.
309. Eastwood, J.P., T.D. Phan, P.A. Cassak, D.J. Gershman, C. Haggerty, K. Malakit, M.A. Shay, R. Mistry, M. Øieroset, C.T. Russell, J.A. Slavin, M.R. Argall, L.A. Avanov, J.L. Burch, L.J. Chen, J.C. Dorelli, R.E. Ergun, B.L. Giles, Y. Khotyaintsev, B. Lavraud, P.A. Lindqvist, T.E. Moore, R. Nakamura, W. Paterson, C. Pollock, R.J. Strangeway, R.B. Torbert, S. Wang: Ion-scale secondary flux ropes generated by magnetopause reconnection as resolved by MMS, *Geophys. Res. Lett.*, 43, 4716-4724, doi:10.1002/2016GL068747, 2016.
310. Ergun, R.E., J.C. Holmes, K.A. Goodrich, F.D. Wilder, J.E. Stawarz, S. Eriksson, D.L. Newman, S.J. Schwartz, M.V. Goldman, A.P. Sturmer, D.M. Malaspina, M.E. Usanova, R.B. Torbert, M. Argall, P.-A. Lindqvist, Y. Khotyaintsev, J.L. Burch, R.J. Strangeway, C.T. Russell, C.J. Pollock, B.L. Giles, J.J.C. Dorelli, L. Avanov, M. Hesse, L.J. Chen, B. Lavraud, O. Le Contel, A. Retino, T.D. Phan, J.P. Eastwood, M. Øieroset, J. Drake, M.A. Shay, P.A. Cassak, R. Nakamura, M. Zhou, M. Ashour-Abdalla, M. André: Magnetospheric Multiscale observations of large-amplitude, parallel, electrostatic waves associated with magnetic reconnection at the magnetopause, *Geophys. Res. Lett.*, 43, 5626-5634, doi:10.1002/2016GL068992, 2016.
311. Ergun, R.E., K.A. Goodrich, F.D. Wilder, J.C. Holmes, J.E. Stawarz, S. Eriksson, A.P. Sturmer, D.M. Malaspina, M.E. Usanova, R.B. Torbert, P.-A. Lindqvist, Y. Khotyaintsev, J.L. Burch, R.J. Strangeway, C.T. Russell, C.J. Pollock, B.L. Giles, M. Hesse, L.J. Chen, G. Lapenta, M.V. Goldman, D.L. Newman, S.J. Schwartz, J.P. Eastwood, T.D. Phan, F.S. Mozer, J. Drake, M.A. Shay, P.A. Cassak, R. Nakamura, G. Marklund: Magnetospheric Multiscale Satellites observations of parallel electric fields associated with magnetic reconnection, *Phys. Rev. Lett.*, 116, 235102, doi:10.1103/PhysRevLett.116.235102, 2016.
312. Eriksson, S., F.D. Wilder, R.E. Ergun, S.J. Schwartz, P.A. Cassak, J.L. Burch, L.-J. Chen, R.B. Torbert, T.D. Phan, B. Lavraud, K.A. Goodrich, J.C. Holmes, J.E. Stawarz, A.P. Sturmer, D.M. Malaspina, M.E. Usanova, K.J. Trattner, R.J. Strangeway, C.T. Russell, C.J. Pollock, B.L. Giles, M. Hesse, P.-A. Lindqvist, J.F. Drake, M.A. Shay, R. Nakamura, G.T. Marklund: Magnetospheric Multiscale observations of the electron diffusion region of large guide field magnetic reconnection, *Phys. Rev. Lett.*, 117, 015001, doi:10.1103/PhysRevLett.117.015001, 2016.

313. Fischer, D., W. Magnes, C. Hagen, I. Dors, M.W. Chutter, J. Needell, R.B. Torbert, O. Le Contel, R.J. Strangeway, G. Kubin, A. Valavanoglou, F. Plaschke, R. Nakamura, L. Mirioni, C.T. Russell, H.K. Leinweber, K.R. Bromund, G. Le, L. Kepko, B.J. Anderson, J.A. Slavin, W. Baumjohann: Optimized merging of search coil and fluxgate data for MMS, *Geosci. Instrum. Method. Data Syst.*, 5, 521-530, doi:10.5194/gi-5-521-2016, 2016.
314. Fuselier, S.A., J.L. Burch, P.A. Cassak, J. Goldstein, R.G. Gomez, K. Goodrich, W.S. Lewis, D. Malaspina, J. Mukherjee, R. Nakamura, S.M. Petrinec, C.T. Russell, R.J. Strangeway, R.B. Torbert, K.J. Trattner, P. Valek: Magnetospheric ion influence on magnetic reconnection at the duskside magnetopause, *Geophys. Res. Lett.*, 43, 1435-1442, doi:10.1002/2015GL067358, 2016.
315. Goodrich, K.A., R.E. Ergun, F.D. Wilder, J. Burch, R. Torbert, Yu. Khotyaintsev, P.-A. Lindqvist, C.T. Russell, R.J. Strangeway, W. Magnes, D. Gershman, B. Giles, R. Nakamura, J. Stawarz, J. Holmes, A. Sturmer, D.M. Malaspina: MMS Multipoint electric field observations of small-scale magnetic holes, *Geophys. Res. Lett.*, 43, 5953-5959, doi:10.1002/2016GL069157, 2016.
316. Khotyaintsev, Yu.V., D.B. Graham, C. Norgren, E. Eriksson, W. Li, A. Johlander, A. Vaivads, M. André, P.L. Pritchett, A. Retinò, T.D. Phan, R.E. Ergun, K. Goodrich, P.-A. Lindqvist, G.T. Marklund, O. Le Contel, F. Plaschke, W. Magnes, R.J. Strangeway, C.T. Russell, H. Vaith, M.R. Argall, C.A. Kletzing, R. Nakamura, R.B. Torbert, W.R. Paterson, D.J. Gershman, J.C. Dorelli, L.A. Avanov, B. Lavraud, Y. Saito, B.L. Giles, C.J. Pollock, D.L. Turner, J.D. Blake, J.F. Fennell, A. Jaynes, B.H. Mauk, J.L. Burch: Electron jet of asymmetric reconnection, *Geophys. Res. Lett.*, 43, 5571-5580, doi:10.1002/2016GL069064, 2016.
317. Lavraud, B., Y.C. Zhang, Y. Vernisse, D.J. Gershman, J. Dorelli, P.A. Cassak, J. Dargent, C. Pollock, B. Giles, N. Aunai, M. Argall, L. Avanov, A. Barrie, J. Burch, M. Chandler, L.-J. Chen, G. Clark, I. Cohen, V. Coffey, J.P. Eastwood, J. Egedal, S. Eriksson, R. Ergun, C.J. Farrugia, S.A. Fuselier, V. Genot, D. Graham, E. Grigorenko, H. Hasegawa, C. Jacquy, I. Kacem, Y. Khotyaintsev, E. MacDonald, W. Magnes, A. Marchaudon, B. Mauk, T.E. Moore, T. Mukai, R. Nakamura, W. Paterson, E. Penou, T.D. Phan, A. Rager, A. Retino, Z.J. Rong, C.T. Russell, Y. Saito, J.-A. Sauvaud, S.J. Schwartz, C. Shen, S. Smith, R. Strangeway, S. Toledo-Redondo, R. Torbert, D.L. Turner, S. Wang, S. Yokota: Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause, *Geophys. Res. Lett.*, 43, 3042-3050, doi:10.1002/2016GL068359, 2016.
318. Le, G., H. Lühr, B.J. Anderson, R.J. Strangeway, C.T. Russell, H. Singer, J.A. Slavin, Y. Zhang, T. Huang, K. Bromund, P.J. Chi, G. Lu, D. Fischer, E.L. Kepko, H.K. Leinweber, W. Magnes, R. Nakamura, F. Plaschke, J. Park, J. Rauberg, C. Stolle, R.B. Torbert: Magnetopause erosion during the 17 March 2015 magnetic storm: Combined field-aligned currents, auroral oval, and magnetopause observations, *Geophys. Res. Lett.*, 43, 2396-2404, doi:10.1002/2016GL068257, 2016.
319. Nagai, T., N. Kitamura, H. Hasegawa, I. Shinohara, S. Yokota, Y. Saito, R. Nakamura, B.L. Giles, C. Pollock, T.E. Moore, J.C. Dorelli, D.J. Gershman, W.R. Paterson, L.A. Avanov, M.O. Chandler, V. Coffey, J.A. Sauvaud, B. Lavraud, C.T. Russell, R.J. Strangeway, M. Oka, K.J. Genestreti, J.L. Burch: Thick escaping magnetospheric ion layer in magnetopause reconnection with MMS observations, *Geophys. Res. Lett.*, 43, 6028-6035, doi:10.1002/2016GL069085, 2016.
320. Nakamura, T.K.M., R. Nakamura, H. Hasegawa: Spatial dimensions of the electron diffusion region in anti-parallel magnetic reconnection, *Ann. Geophys.*, 34, 357-367, doi:10.5194/angeo-34-357-2016, 2016.
321. Nakamura, T.K.M., R. Nakamura, Y. Narita, W. Baumjohann, W. Daughton: Multi-scale structures of turbulent magnetic reconnection, *Phys. Plasmas*, 23, 052116, doi:10.1063/1.4951025, 2016.

322. Nakamura, T.K.M., R. Nakamura, W. Baumjohann, T. Umeda, I. Shinohara: Three-dimensional development of front region of plasma jets generated by magnetic reconnection, *Geophys. Res. Lett.*, 43, 8356-8364, doi:10.1002/2016GL070215, 2016.
323. Narita, Y., F. Plaschke, R. Nakamura, W. Baumjohann, W. Magnes, D. Fischer, Z. Vörös, R.B. Torbert, C.T. Russell, R.J. Strangeway, H.K. Leinweber, K.R. Bromund, B.J. Anderson, G. Le, M. Chutter, J.A. Slavin, E.L. Kepko, J.L. Burch, U. Motschmann, I. Richter, K.-H. Glassmeier: Wave telescope technique for MMS magnetometer, *Geophys. Res. Lett.*, 43, 4774-4780, doi:10.1002/2016GL069035, 2016.
324. Narita, Y., R. Nakamura, W. Baumjohann, K.-H. Glassmeier, U. Motschmann, B. Giles, W. Magnes, D. Fischer, R.B. Torbert, C.T. Russell, R.J. Strangeway, J.L. Burch, Y. Nariyuki, S. Saito, S.P. Gary: On electron-scale whistler turbulence in the solar wind, *Astrophys. J. Lett.*, 827, L8, doi:10.3847/2041-8205/827/1/L8, 2016.
325. Narita, Y., R. Nakamura, W. Baumjohann, K.-H. Glassmeier, U. Motschmann, H. Comisel: Ion Bernstein waves in the magnetic reconnection region, *Ann. Geophys.*, 34, 85-89, doi:10.5194/angeo-34-85-2016, 2016.
326. Palin, L., H.J. Opgenoorth, K. Agren, T. Zivkovic, V.A. Sergeev, M.V. Kubyshkina, A. Nikolaev, K. Kauristie, M. van de Kamp, O. Amm, S.E. Milan, S.M. Imber, G. Facsko, M. Palmroth, R. Nakamura: Modulation of the substorm current wedge by bursty bulk flows: 8 September 2002—Revisited, *J. Geophys. Res.*, 121, 4466-4482, doi:10.1002/2015JA022262, 2016.
327. Panov, E.V., W. Baumjohann, R.A. Wolf, R. Nakamura, V. Angelopoulos, J.M. Weygand, M.V. Kubyshkina: Magnetotail energy dissipation during an auroral substorm, *Nat. Phys.*, 12, 1158-1163, doi:10.1038/NPHYS3879, 2016.
328. Plaschke, F., H. Hietala, V. Angelopoulos, R. Nakamura: Geoeffective jets impacting the magnetopause are very common, *J. Geophys. Res.*, 121, 3240-3253, doi:10.1002/2016JA022534, 2016.
329. Plaschke, F., N. Kahr, D. Fischer, R. Nakamura, W. Baumjohann, W. Magnes, J.L. Burch, R.B. Torbert, C.T. Russell, B.L. Giles, R.J. Strangeway, H.K. Leinweber, K.R. Bromund, B.J. Anderson, G. Le, M. Chutter, J.A. Slavin, E.L. Kepko: Steepening of waves at the duskside magnetopause, *Geophys. Res. Lett.*, 43, 7373-7380, doi:10.1002/2016GL070003, 2016.
330. Reiff, P.H., A.G. Daou, S.Y. Sazykin, R. Nakamura, M.R. Hairston, V. Coffey, M.O. Chandler, B.J. Anderson, C.T. Russell, D. Welling, S.A. Fuselier, K.J. Genestreti: Multispacecraft observations and modeling of the 22/23 June 2015 geomagnetic storm, *Geophys. Res. Lett.*, 43, 7311-7318, doi:10.1002/2016GL069154, 2016.
331. Russell, C.T., B.J. Anderson, W. Baumjohann, K.R. Bromund, D. Dearborn, D. Fischer, G. Le, H.K. Leinweber, D. Leneman, W. Magnes, J.D. Means, M.B. Moldwin, R. Nakamura, D. Pierce, F. Plaschke, K.M. Rowe, J.A. Slavin, R.J. Strangeway, R. Torbert, C. Hagen, I. Jernej, A. Valavanoglou, I. Richter: The magnetospheric multiscale magnetometers, *Space Sci. Rev.*, 199, 189-256, doi:10.1007/s11214-014-0057-3, 2016.
332. Schmid, D., R. Nakamura, M. Volwerk, F. Plaschke, Y. Narita, W. Baumjohann, W. Magnes, D. Fischer, H.U. Eichelberger, R.B. Torbert, C.T. Russell, R.J. Strangeway, H.K. Leinweber, G. Le, K.R. Bromund, B.J. Anderson, J.A. Slavin, E.L. Kepko: A comparative study of dipolarization fronts at MMS and Cluster, *Geophys. Res. Lett.*, 43, 6012-6019, doi:10.1002/2016GL069520, 2016.

333. 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, G. Le, R. Nakamura, R.J. Strangeway, H.K. Leinweber, S. Tucker, J. Westfall, D. Fischer, F. Plaschke, J. Porter, K. Lappalainen: The FIELDS instrument suite on MMS: Scientific objectives, measurements, and data products, *Space Sci. Rev.*, 199, 105-135, doi:10.1007/s11214-014-0109-8, 2016.
334. Torbert, R.B., H. Vaith, M. Granoff, M. Widholm, J.A. Gaidos, B.H. Briggs, I.G. Dors, M.W. Chutter, J. Macri, M. Argall, D. Bodet, J. Needell, M.B. Steller, W. Baumjohann, R. Nakamura, F. Plaschke, H. Ottacher, J. Hasiba, K. Hofmann, C.A. Kletzing, S.R. Bounds, R.T. Dvorsky, K. Sigsbee, V. Kooi: The Electron Drift Instrument for MMS, *Space Sci. Rev.*, 199, 283-305, doi:10.1007/s11214-015-0182-7, 2016.
335. Torkar, K., R. Nakamura, M. Tajmar, C. Scharlemann, H. Jeszenszky, G. Laky, G. Fremuth, C.P. Escoubet, K. Svenen: Active spacecraft potential control investigation, *Space Sci. Rev.*, 199, 515-544, doi:10.1007/s11214-014-0049-3, 2016.
336. Turner, D.L., J.F. Fennell, J.B. Blake, J.H. Clemmons, B.H. Mauk, I.J. Cohen, A.N. Jaynes, J.V. Craft, F.D. Wilder, D.N. Baker, G.D. Reeves, D.J. Gershman, L.A. Avanov, J.C. Dorelli, B.L. Giles, C.J. Pollock, D. Schmid, R. Nakamura, R.J. Strangeway, C.T. Russell, A.V. Artemyev, A. Runov, V. Angelopoulos, H.E. Spence, R.B. Torbert, J.L. Burch: Energy limits of electron acceleration in the plasma sheet during substorms: A case study with the Magnetospheric Multiscale (MMS) mission, *Geophys. Res. Lett.*, 43, 7785-7794, doi:10.1002/2016GL069691, 2016.
337. Vaivads, A., A. Retinò, J. Soucek, Yu.V. Khotyaintsev, F. Valentini, C.P. Escoubet, O. Alexandrova, M. André, S.D. Bale, M. Balikhin, D. Burgess, E. Camporeale, D. Caprioli, C.H.K. Chen, E. Clacey, C.M. Cully, J. De Keyser, J.P. Eastwood, A.N. Fazakerley, S. Eriksson, M.L. Goldstein, D.B. Graham, S. Haaland, M. Hoshino, H. Ji, H. Karimabadi, H. Kucharek, B. Lavraud, F. Marcucci, W.H. Matthaeus, T.E. Moore, R. Nakamura, Y. Narita, Z. Nemecek, C. Norgren, H. Opgenoorth, M. Palmroth, D. Perrone, J.-L. Pinçon, P. Rathsman, H. Rothkaehl, F. Sahraoui, S. Servidio, L. Sorriso-Valvo, R. Vainio, Z. Vörös, R.F. Wimmer-Schweingruber: Turbulence Heating Observer - satellite mission proposal, *J. Plasma Phys.*, 82, 905820501, doi:10.1017/S0022377816000775, 2016.
338. Wang, G.Q., T.L. Zhang, M. Volwerk, D. Schmid, W. Baumjohann, R. Nakamura, Z.H. Pan: Mirror mode structures ahead of dipolarization front near the neutral sheet observed by Cluster, *Geophys. Res. Lett.*, 43, 8853-8858, doi:10.1002/2016GL070382, 2016.
339. Wang, R., Q. Lu, R. Nakamura, C. Huang, A. Du, F. Guo, W. Teh, M. Wu, S. Lu, S. Wang: Coalescence of magnetic flux ropes in the ion diffusion region of magnetic reconnection, *Nat. Phys.*, 12, 263-267, doi:10.1038/NPHYS3578, 2016.
340. Wang, R., Q. Lu, R. Nakamura, C. Huang, X. Li, M. Wu, A. Du, X. Gao, S. Wang: Electrostatic and electromagnetic fluctuations detected inside magnetic flux ropes during magnetic reconnection, *J. Geophys. Res.*, 121, 9473-9482, doi:10.1002/2016JA022906, 2016.
341. Xiao, S., T.L. Zhang, Y. Ge, G. Wang, W. Baumjohann, R. Nakamura: A statistical study on the shape and position of the magnetotail neutral sheet, *Ann. Geophys.*, 34, 303-311, doi:10.5194/angeo-34-303-2016, 2016.

342. Yordanova, E., Z. Vörös, A. Varsani, D.B. Graham, C. Norgren, Yu.V. Khotyaintsev, A. Vaivads, E. Eriksson, R. Nakamura, P.-A. Lindqvist, G. Marklund, R.E. Ergun, W. Magnes, W. Baumjohann, D. Fischer, F. Plaschke, Y. Narita, C.T. Russell, R.J. Strangeway, O. Le Contel, C. Pollock, R.B. Torbert, B.J. Giles, J.L. Burch, L.A. Avanov, J.C. Dorelli, D.J. Gershman, W.R. Paterson, B. Lavraud, Y. Saito: Electron scale structures and magnetic reconnection signatures in the turbulent magnetosheath, *Geophys. Res. Lett.*, 43, 5969-5978, doi:10.1002/2016GL069191, 2016.
343. Yushkov, E.V., A.V. Artemyev, A.A. Petrukovich, R. Nakamura: Current sheet flapping in the near-Earth magnetotail: Peculiarities of propagation and parallel currents, *Ann. Geophys.*, 34, 739-750, doi:10.5194/angeo-34-739-2016, 2016.
344. Zelenyi, L.M., A.G. Frank, A.V. Artemyev, A.A. Petrukovich, R. Nakamura: Formation of sub-ion scale filamentary force-free structures in the vicinity of reconnection region, *Plasma Phys. Control. Fusion*, 58, 054002, doi:10.1088/0741-3335/58/5/054002, 2016.
345. Zhao, C., C.T. Russell, R.J. Strangeway, S.M. Petrinen, W.R. Paterson, M. Zhou, B.J. Anderson, W. Baumjohann, K.R. Bromund, M. Chutter, D. Fischer, G. Le, R. Nakamura, F. Plaschke, J.A. Slavin, R.B. Torbert, H.Y. Wei: Force balance at the magnetopause determined with MMS: Application to flux transfer events, *Geophys. Res. Lett.*, 43, 11941-11947, doi:10.1002/2016GL071568, 2016.
346. Eastwood, J.P., R. Nakamura, L. Turc, L. Mejnertsen, M. Hesse: The scientific foundations of forecasting magnetospheric space weather, *Space Sci. Rev.*, **212**, 1221-1252, doi:10.1007/s11214-017-0399-8 (2017)
347. Ergun, R.E., L.-J. Chen, F.D. Wilder, N. Ahmadi, S. Eriksson, M.E. Usanova, K.A. Goodrich, J.C. Holmes, A.P. Sturmer, D.M. Malaspina, D.L. Newman, R.B. Torbert, M.R. Argall, P.-A. Lindqvist, J.L. Burch, J.M. Webster, J.F. Drake, L. Price, P.A. Cassak, M. Swisdak, M.A. Shay, D.B. Graham, R.J. Strangeway, C.T. Russell, B.L. Giles, J.C. Dorelli, D. Gershman, L. Avanov, M. Hesse, B. Lavraud, O. Le Contel, A. Retino, T.D. Phan, M.V. Goldman, J.E. Stawarz, S.J. Schwartz, J.P. Eastwood, K.-J. Hwang, R. Nakamura, S. Wang: Drift waves, intense parallel electric fields, and turbulence associated with asymmetric magnetic reconnection at the magnetopause, *Geophys. Res. Lett.*, 44, 2978-2986, doi:10.1002/2016GL072493, 2017.
348. Le, G., P.J. Chi, R.J. Strangeway, C.T. Russell, J.A. Slavin, K. Takahashi, H.J. Singer, B.J. Anderson, K. Bromund, D. Fischer, E.L. Kepko, W. Magnes, R. Nakamura, F. Plaschke, R.B. Torbert: Global observations of magnetospheric high-m poloidal waves during the 22 June 2015 magnetic storm, *Geophys. Res. Lett.*, 44, 3456-3464, doi:10.1002/2017GL073048, 2017.
349. Li, J., J. Bortnik, W. Li, Q. Ma, R.M. Thorne, C.A. Kletzing, W.S. Kurth, G.B. Hospodarsky, J. Wygant, A. Breneman, S. Thaller, H.O. Funsten, D.G. Mitchell, J.W. Manweiler, R.B. Torbert, O. Le Contel, R.E. Ergun, P.-A. Lindqvist, K. Torkar, R. Nakamura, M. Andriopoulou, C.T. Russell: "Zipper-like" periodic magnetosonic waves: Van Allen Probes, THEMIS, and magnetospheric multiscale observations, *J. Geophys. Res.*, 122, 1600-1610, doi:10.1002/2016JA023536, 2017.
350. Liu, C., X. Feng, R. Nakamura, J. Guo, R. Wang: Double-peaked core field of flux ropes during magnetic reconnection, *J. Geophys. Res.*, 122, 6374-6384, doi:10.1002/2017JA024233, 2017.
351. Nakamura, T.K.M., H. Hasegawa, W. Daughton, S. Eriksson, W.Y. Li, R. Nakamura: Turbulent mass transfer caused by vortex induced reconnection in collisionless magnetospheric plasmas, *Nat. Comm.*, 8, 1582, doi:10.1038/s41467-017-01579-0 (2017)

352. Nakamura, T.K.M., S. Eriksson, H. Hasegawa, S. Zenitani, W.Y. Li, K.J. Genestreti, R. Nakamura, W. Daughton: Mass and energy transfer across the Earth's magnetopause caused by vortex-induced reconnection, *J. Geophys. Res.*, 122, 11505-11522, doi:10.1002/2017JA024346 (2017)
353. Plaschke, F., T. Karlsson, H. Hietala, M. Archer, Z. Vörös, R. Nakamura, W. Magnes, W. Baumjohann, R.B. Torbert, C.T. Russell, B.L. Giles: Magnetosheath high-speed jets: Internal structure and interaction with ambient plasma, *J. Geophys. Res.*, 122, 10157-10175, doi:10.1002/2017JA024471 (2017)
354. Russell, C.T., R.J. Strangeway, C. Zhao, B.J. Anderson, W. Baumjohann, K.R. Bromund, D. Fischer, L. Kepko, G. Le, W. Magnes, R. Nakamura, F. Plaschke, J.A. Slavin, R.B. Torbert, T.E. Moore, W.R. Paterson, C.J. Pollock, J.L. Burch: Structure, force balance, and topology of Earth's magnetopause, *Science*, 356, 960-963, doi:10.1126/science.aag3112, 2017.
355. Stawarz, J.E., J.P. Eastwood, A. Varsani, R.E. Ergun, M.A. Shay, R. Nakamura, T.D. Phan, J.L. Burch, D.J. Gershman, B.L. Giles, K.A. Goodrich, Y.V. Khotyaintsev, P.-A. Lindqvist, C.T. Russell, R.J. Strangeway, R.B. Torbert: Magnetospheric Multiscale analysis of intense field-aligned Poynting flux near the Earth's plasma sheet boundary, *Geophys. Res. Lett.*, 44, 7106-7113, doi:10.1002/2017GL073685, 2017.
356. Teh, W.-L., T.K.M. Nakamura, R. Nakamura, W. Baumjohann, C.T. Russell, C. Pollock, P.-A. Lindqvist, R.E. Ergun, J.L. Burch, R.B. Torbert, B.L. Giles: Evolution of a typical ion-scale magnetic flux rope caused by thermal pressure enhancement, *J. Geophys. Res.*, 122, 2040-2050, doi:10.1002/2016JA023777, 2017.
357. Torkar, K., R. Nakamura, M. Andriopoulou, B.L. Giles, H. Jeszenszky, Y.V. Khotyaintsev, P.-A. Lindqvist, R.B. Torbert: Influence of the ambient electric field on measurements of the actively controlled spacecraft potential by MMS, *J. Geophys. Res.*, 122, 12019-12030, doi:10.1002/2017JA024724 (2017)
358. Varsani, A., R. Nakamura, V.A. Sergeev, W. Baumjohann, C.J. Owen, A.A. Petrukovich, Z. Yao, T.K.M. Nakamura, M.V. Kubyshkina, T. Sotirelis, J.L. Burch, K.J. Genestreti, Z. Vörös, M. Andriopoulou, D.J. Gershman, L.A. Avanov, W. Magnes, C.T. Russell, F. Plaschke, Y.V. Khotyaintsev, B.L. Giles, V.N. Coffey, J.C. Dorelli, R.J. Strangeway, R.B. Torbert, P.-A. Lindqvist, R. Ergun: Simultaneous remote observations of intense reconnection effects by DMSP and MMS spacecraft during a storm time substorm, *J. Geophys. Res.*, 122, 10891-10909, doi:10.1002/2017JA024547 (2017)
359. Vörös, Z., E. Yordanova, A. Varsani, K.J. Genestreti, Yu.V. Khotyaintsev, W. Li, D.B. Graham, C. Norgren, R. Nakamura, Y. Narita, F. Plaschke, W. Magnes, W. Baumjohann, D. Fischer, A. Vaivads, E. Eriksson, P.-A. Lindqvist, G. Marklund, R.E. Ergun, M. Leitner, M.P. Leubner, R.J. Strangeway, O. Le Contel, C. Pollock, B.J. Giles, R.B. Torbert, J.L. Burch, L.A. Avanov, J.C. Dorelli, D.J. Gershman, W.R. Paterson, B. Lavraud, Y. Saito: MMS observation of magnetic reconnection in the turbulent magnetosheath, *J. Geophys. Res.*, 122, 11442-11467, doi:10.1002/2017JA024535 (2017)
360. Wang, R., R. Nakamura, Q. Lu, W. Baumjohann, R.E. Ergun, J.L. Burch, M. Volwerk, A. Varsani, T. Nakamura, W. Gonzalez, B. Giles, D. Gershman, S. Wang: Electron-scale quadrants of the Hall magnetic field observed by the Magnetospheric Multiscale spacecraft during asymmetric reconnection, *Phys. Rev. Lett.*, 118, 175101, doi:10.1103/PhysRevLett.118.175101, 2017.

361. Wang, R., Q. Lu, R. Nakamura, W. Baumjohann, C.T. Russell, J.L. Burch, R.E. Ergun, P.A. Lindqvist, S. Wang, B. Giles, D. Gershman: Interaction of magnetic flux ropes via magnetic reconnection observed at the magnetopause, *J. Geophys. Res.*, **122**, 10436-10447, doi:10.1002/2017JA024482 (2017).
362. Xiao, S., T.L. Zhang, G. Wang, M. Volwerk, Y. Ge, D. Schmid, R. Nakamura, W. Baumjohann, F. Plaschke: Occurrence rate of dipolarization fronts in the plasma sheet: Cluster observations, *Ann. Geophys.*, **35**, 1015-1022, doi:10.5194/angeo-35-1015-2017, 2017.
363. Yao, Z.H., I.J. Rae, R.L. Guo, A.N. Fazakerley, C.J. Owen, R. Nakamura, W. Baumjohann, C.E.J. Watt, K.J. Hwang, B.L. Giles, C.T. Russell, R.B. Torbert, A. Varsani, H.S. Fu, Q.Q. Shi, X.-J. Zhang: A direct examination of the dynamics of dipolarization fronts using MMS, *J. Geophys. Res.*, **122**, 4335-4347, doi:10.1002/2016JA023401, 2017.
364. Yushkov, E., A. Petrukovich, A. Artemyev, R. Nakamura: Relationship between electron field-aligned anisotropy and dawn-dusk magnetic field: Nine years of Cluster observations in the Earth magnetotail, *J. Geophys. Res.*, **122**, 9294-9305, doi:10.1002/2016JA023739 (2017)
365. Akhavan-Tafti, M., J.A. Slavin, G. Le, J.P. Eastwood, R.J. Strangeway, C.T. Russell, R. Nakamura, W. Baumjohann, R.B. Torbert, B.L. Giles, D.J. Gershman, J.L. Burch: MMS examination of FTEs at the Earth's subsolar magnetopause, *J. Geophys. Res.*, **123**, 1224-1241, doi:10.1002/2017JA024681 (2018).
366. Andriopoulou, M., R. Nakamura, S. Wellenzohn, K. Torkar, W. Baumjohann, R.B. Torbert, P.-A. Lindqvist, Yu.V. Khotyaintsev, J. Dorelli, J.L. Burch: Plasma density estimates from spacecraft potential using MMS observations in the dayside magnetosphere, *J. Geophys. Res.*, **123**, 2620-2629, doi:10.1002/2017JA025086 (2018).
367. Artemyev, A.V., P.L. Pritchett, V. Angelopoulos, X.-J. Zhang, R. Nakamura, S. Lu, A. Runov, S.A. Fuselier, S. Wellenzohn, F. Plaschke, C.T. Russell, R.J. Strangeway, P.-A. Lindqvist, R.E. Ergun: Field-aligned currents originating from the magnetic reconnection region: Conjugate MMS-ARTEMIS observations, *Geophys. Res. Lett.*, **45**, 5836-5844, doi:10.1029/2018GL078206 (2018)
368. Breuillard, H., O. Le Contel, T. Chust, M. Berthomier, A. Retino, D.L. Turner, R. Nakamura, W. Baumjohann, G. Cozzani, F. Catapano, A. Alexandrova, L. Mirioni, D.B. Graham, M.R. Argall, D. Fischer, F.D. Wilder, D.J. Gershman, A. Varsani, P.-A. Lindqvist, Yu.V. Khotyaintsev, G. Marklund, R.E. Ergun, K.A. Goodrich, N. Ahmadi, J.L. Burch, R.B. Torbert, G. Needell, M. Chutter, D. Rau, I. Dors, C.T. Russell, W. Magnes, R.J. Strangeway, K.R. Bromund, H. Wei, F. Plaschke, B.J. Anderson, G. Le, T.E. Moore, B.L. Giles, W.R. Paterson, C.J. Pollock, J.C. Dorelli, L.A. Avanov, Y. Saito, B. Lavraud, S.A. Fuselier, B.H. Mauk, I.J. Cohen, J.F. Fennel: The properties of Lion Roars and electron dynamics in mirror mode waves observed by the Magnetospheric MultiScale mission, *J. Geophys. Res.*, **123**, 93-103, doi:10.1002/2017JA024551 (2018)
369. Ergun, R.E., K.A. Goodrich, F.D. Wilder, N. Ahmadi, J.C. Holmes, S. Eriksson, J.E. Stawarz, R. Nakamura, K.J. Genestreti, M. Hesse, J.L. Burch, R.B. Torbert, T.D. Phan, S.J. Schwartz, J.P. Eastwood, R.J. Strangeway, O. Le Contel, C.T. Russell, M.R. Argall, P.-A. Lindqvist, L.J. Chen, P.A. Cassak, B.L. Giles, J.C. Dorelli, D. Gershman, T.W. Leonard, B. Lavraud, A. Retino, W. Matthaeus, A. Vaivads: Magnetic reconnection, turbulence, and particle acceleration: Observations in the Earth's magnetotail, *Geophys. Res. Lett.*, **45**, 3338-3347, doi:10.1002/2018GL076993 (2018)



370. Farrugia, C.J., I.J. Cohen, B.J. Vasquez, N. Lugaz, L. Alm, R.B. Torbert, M.R. Argall, K. Paulson, B. Lavraud, D.J. Gershman, F.T. Gratton, H. Matsui, A. Rogers, T.G. Forbes, D. Payne, R.E. Ergun, B. Mauk, J.L. Burch, C.T. Russell, R.J. Strangeway, J. Shuster, R. Nakamura, S.A. Fuselier, B.L. Giles, Y.V. Khotyaintsev, P.A. Lindqvist, G.T. Marklund, S.M. Petrinec, C.J. Pollock: Effects in the near-magnetopause magnetosheath elicited by large-amplitude Alfvénic fluctuations terminating in a field and flow discontinuity, *J. Geophys. Res.*, 123, 8983-9004, doi:10.1029/2018JA025724 (2018).
371. Genestreti, K.J., A. Varsani, J.L. Burch, P.A. Cassak, R.B. Torbert, R. Nakamura, R.E. Ergun, T.-D. Phan, S. Toledo-Redondo, M. Hesse, S. Wang, B.L. Giles, C.T. Russell, Z. Vörös, K.-J. Hwang, J.P. Eastwood, B. Lavraud, C.P. Escoubet, R.C. Fear, Y. Khotyaintsev, T.K.M. Nakamura, J.M. Webster, W. Baumjohann: MMS observation of asymmetric reconnection supported by 3-D electron pressure divergence, *J. Geophys. Res.*, 123, 1806-1821, doi:10.1002/2017JA025019 (2018)
372. Genestreti, K.J., P.A. Cassak, A. Varsani, J.L. Burch, R. Nakamura, S. Wang: Assessing the time dependence of reconnection with Poynting's theorem: MMS observations, *Geophys. Res. Lett.*, 45, 2886-2892, doi:10.1002/2017GL076808 (2018),
373. Genestreti, K.J., T.K.M. Nakamura, R. Nakamura, R.E. Denton, R.B. Torbert, J.L. Burch, F. Plaschke, S.A. Fuselier, R.E. Ergun, B.L. Giles, C.T. Russell: How accurately can we measure the reconnection rate  $E_M$  for the MMS diffusion region event of 11 July 2017?, *J. Geophys. Res.*, 123, 9130-9149, doi:10.1029/2018JA025711 (2018).
374. Hesse, M., C. Norgren, P. Tenfjord, J.L. Burch, Y.-H. Liu, L.-J. Chen, N. Bessho, S. Wang, R. Nakamura, J.P. Eastwood, M. Hoshino, R.B. Torbert, R.E. Ergun: On the role of separatrix instabilities in heating the reconnection outflow region, *Phys. Plasmas*, 25, 122902, doi:10.1063/1.5054100 (2018)
375. Murphy, K.R., A.R. Inglis, D.G. Sibeck, I.J. Rae, C.E.J. Watt, M. Silveira, F. Plaschke, S.G. Claudepierre, R. Nakamura: Determining the mode, frequency, and azimuthal wave number of ULF waves during a HSS and moderate geomagnetic storm, *J. Geophys. Res.*, 123, 6457-6477, doi:10.1029/2017JA024877 (2018).
376. Nakamura, T.K.M., K.J. Genestreti, Y.-H. Liu, R. Nakamura, W.-L. Teh, H. Hasegawa, W. Daughton, M. Hesse, R.B. Torbert, J.L. Burch, B.L. Giles: Measurement of the magnetic reconnection rate in the Earth's magnetotail, *J. Geophys. Res.*, 123, 9150-9168, doi:10.1029/2018JA025711 (2018).
377. Nakamura, T.K.M., R. Nakamura, A. Varsani, K.J. Genestreti, W. Baumjohann, Y.-H. Liu: Remote sensing of the reconnection electric field from in situ multipoint observations of the separatrix boundary, *Geophys. Res. Lett.*, 45, 3829-3837, doi:10.1029/2018GL078340 (2018).
378. Roberts, O.W., S. Toledo-Redondo, D. Perrone, J. Zhao, Y. Narita, D. Gershman, R. Nakamura, B. Lavraud, C.P. Escoubet, B. Giles, J. Dorelli, C. Pollock, J. Burch: Ion-scale kinetic Alfvén turbulence: MMS measurements of the Alfvén ratio in the magnetosheath, *Geophys. Res. Lett.*, 45, 7974-7984, doi:10.1029/2018GL078498 (2018).
379. Stawarz, J.E., J.P. Eastwood, K.J. Genestreti, R. Nakamura, R.E. Ergun, D. Burgess, J.L. Burch, S.A. Fuselier, D.J. Gershman, B.L. Giles, O. Le Contel, P.-A. Lindqvist, C.T. Russell, R.B. Torbert: Intense electric fields and electron-scale substructure within magnetotail flux ropes as revealed by the

Magnetospheric Multiscale mission, *Geophys. Res. Lett.*, 45, 8783-8792, doi:10.1029/2018GL079095 (2018).

380. Teh, W.-L., T.K.M. Nakamura, R. Nakamura, T. Umeda: Oblique ion-scale magnetotail flux ropes generated by secondary tearing modes, *J. Geophys. Res.*, 123, 8122-8130, doi:10.1029/2018JA025775 (2018)
381. Torbert, R.B., J.L. Burch, T.D. Phan, M. Hesse, M.R. Argall, J. Shuster, R.E. Ergun, L. Alm, R. Nakamura, K.J. Genestreti, D.J. Gershman, W.R. Paterson, D.L. Turner, I. Cohen, B.L. Giles, C.J. Pollock, S. Wang, L.-J. Chen, J.E. Stawarz, J.P. Eastwood, K.J. Hwang, C. Farrugia, I. Dors, H. Vaith, C. Mouikis, A. Ardakani, B.H. Mauk, S.A. Fuselier, C.T. Russell, R.J. Strangeway, T.E. Moore, J.F. Drake, M.A. Shay, Yu.V. Khotyaintsev, P.-A. Lindqvist, W. Baumjohann, F.D. Wilder, N. Ahmadi, J.C. Dorelli, L.A. Avanov, M. Oka, D.N. Baker, J.F. Fennell, J.B. Blake, A.N. Jaynes, O. Le Contel, S.M. Petrinec, B. Lavraud, Y. Saito: Electron-scale dynamics of the diffusion region during symmetric magnetic reconnection in space, *Science*, 362, 1391-1395, doi:10.1126/science.aat2998 (2018)
382. Wang, R., Q. Lu, R. Nakamura, W. Baumjohann, C. Huang, C.T. Russell, J.L. Burch, C.J. Pollock, D. Gershman, R.E. Ergun, S. Wang, P.A. Lindqvist, B. Giles: An electron-scale current sheet without bursty reconnection signatures observed in the near-Earth tail, *Geophys. Res. Lett.*, 45, 4542-4549, doi:10.1002/2017GL076330 (2018).
383. Wu, M., Q. Lu, M. Volwerk, R. Nakamura, T.-L. Zhang: Electron acceleration behind a wavy dipolarization front, *Astrophys. Space Sci.*, 363, 22, doi:10.1007/s10509-017-3241-6 (2018)
384. Yushkov, E.V., A.G. Frank, A.V. Artemyev, A.A. Petrukovich, R. Nakamura: Hall effect in laboratory and space current sheets, *Plasma Phys. Rep.*, 44, 1126-1134, doi:10.1134/S1063780X18120085 (2018)
385. Hasegawa, H., R.E. Denton, R. Nakamura, K.J. Genestreti, T.K.M. Nakamura, K.-J. Hwang, T.D. Phan, R.B. Torbert, J.L. Burch, B.L. Giles, D.J. Gershman, C.T. Russell, R.J. Strangeway, P.-A. Lindqvist, Y.V. Khotyaintsev, R.E. Ergun, N. Kitamura, Y. Saito: Reconstruction of the electron diffusion region of magnetotail reconnection seen by the MMS spacecraft on 11 July 2017, *J. Geophys. Res.*, 124, 122-138, doi:10.1029/2018JA026051 (2019)
386. Schmid, D., M. Volwerk, F. Plaschke, R. Nakamura, W. Baumjohann, G.Q. Wang, M.Y. Wu, T.L. Zhang: A statistical study on the properties of dips ahead of dipolarization fronts observed by MMS, *J. Geophys. Res.*, 124, 139-150, doi:10.1029/2018JA026062 (2019)

## Proceedings (First-Author)

1. Nakamura, R., T. Oguti, GADC (Global Aurora Dynamics Campaign) Research Group, Drifts of auroral structures and their relationship to geomagnetic activity, Proc. NIPR Symp. Upper Atmos. Phys. 2, pp. 96, 1989.
2. Nakamura, R., T. Oguti, GADC (Global Aurora Dynamics Campaign) Group, Precipitation pattern of electrons and protons at the onset of auroral substorms, Proc. NIPR Symp. Upper Atmos. Phys. 5, pp. 60, 1992.
3. Nakamura, R., D. N. Baker, R. D. Belian, T. Yamamoto, Spatial scale of the substorm onset region determined from multi-point satellite and ground-based observations, Proc. International Conference on Substorms (ICS-1), ESA SP-335, 353, 1992.
4. Nakamura, R., S. Kokubun, Y. Kamide, T. Yamamoto, K. Tsuruda, A. Matsuoka, IDA Study Team, Storm- and substorm-associated changes in the magnetotail structures, Proc. Eighth International Symposium on Solar Terrestrial Physics, pp. 90, 1994.
5. Nakamura, R., D. N. Baker, B. J. Blake, S. Kanekal, Relativistic electron precipitation near the outer edge of the radiation belt, Proc. Eighth International Symposium on Solar Terrestrial Physics, pp. 159, 1994.
6. Nakamura, R., Configuration changes in the midtail and distant tail during magnetic storm, Proc. International Conference on Magnetic Storms, pp. 66, 1994.
7. Nakamura, R., D. N. Baker, B. J. Blake, S. Kanekal, Relativistic electron precipitation near the outer radiation belt, Proc. NIPR Symp. Upper Atmos. Phys. 9, pp. 67, 1996.
8. Nakamura, R., S. Kokubun, T. Nagai, Substorm/storm-associated changes in the distant tail, Proc. Third International Conference on Substorms (ICS-3), ESA SP-389, 493, 1996.
9. Nakamura, R., S. Kokubun, T. Mukai, T. Yamamoto, M. Brittnacher, G. Parks, Temporal and spatial relationships between midtail substorm disturbance and auroral substorm onset, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 179, 1998.
10. Nakamura, R., S. Kokubun, L. Bargatze, T. Mukai, T. Yamamoto, T. Nagai, K. B. Baker, M. R. Hairston, P. H. Reiff, O. A. Troshichev, Response of the mid-tail lobe/plasma sheet electric field to enhanced solar wind energy input: the November 22, 1995 event, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 699, 1998.
11. Nakamura, R., W. Baumjohann, M. Brittnacher, G. Parks, V. A. Sergeev, M. Kubyshkina, T. Mukai, Fast flows in the midtail during auroral substorms, Proc. Cluster II Workshop on Multiscale/Multipoint Plasma Measurements, ESA SP-449, 375, 2000.
12. Nakamura, R., W. Baumjohann, V. A. Sergeev, M. Kubyshkina, M. Brittnacher, G. Parks, K. Liou, T. Mukai, Fast flow bursts and auroral activations, Proc. 5th International Conference on Substorms, St. Petersburg, Russia, ESA SP-443, 319-322, 2000.
13. Nakamura, R., W. Baumjohann, H. Noda, G. Paschmann, B. Klecker, P. Puhl-Quinn, J. Quinn, R. Torbert, A. Balogh, H. Reme, H. U. Frey, C. J. Owen, A. N. Fazakerley, J. P. Dewhurst, Substorm expansion onsets observed by Cluster, Proc. 6th Intl. Conf. on Substorms, ed. by R.M. Winglee, pp. 55, U. of Washington, Seattle, 2002.

14. Nakamura, R., C. Mouikis, L. Kistler, W. Baumjohann, A. Runov, Y. Asano, M. Volwerk, B. Klecker, A. Balogh, H. Reme, Plasma sheet fast flows and their relationships to tail current sheet dynamics: Cluster observation, Proc. 7th Int. Conf. Substorms, Eds. N. Ganushkina and T. Pulkkinen, Finnish Meteorological Inst., Helsinki, 133-139, 2004.
15. Nakamura, R., W. Baumjohann, H. Noda, K. Torkar, T. Nagai, M. Fujimoto, T. Mukai, B. Klecker, G. Paschmann, P. Puhl-Quinn, H. Vaith, J. Bogdanova, A. Balogh, H. Rème, J.A. Sauvaud, J. Quinn, R. Torbert, L. Kistler: Plasma sheet expansion observed by Cluster and Geotail, In "Frontiers in Magnetospheric Plasma Physics", ed. by M. Hoshino et al., Elsevier-Pergamon, Amsterdam, pp. 177-185, 2005.
16. Nakamura, R., Multi-point observations of the Earth's magnetotail by Cluster, In "Festschrift SJB 75", ed. by H.O. Rucker and R. Leitinger, pp. 61-71, ÖAW/KFU, Graz, 2005.
17. Nakamura, R., W. Baumjohann, A. Runov, Y. Asano: Tail reconnection and plasma sheet fast flows. ESA SP-598, P9.1, 2006.
18. Nakamura, R., T. Takada, W. Baumjohann, M. Volwerk, T.L. Zhang, Y. Asano, A. Runov, Z. Vörös, E. Lucek, C. Carr, B. Klecker, H. Rème, O. Amm: Fast flow, dipolarization, and substorm evolution: Cluster/Double Star multipoint observations. In Proc. 8th Int. Conf. Sub-storms, ed. by M. Syrjäsoo and E. Donovan, Calgary, pp. 197-202, 2006.

#### **Proceedings (Co-Author)**

19. Nemzek, R. J., R. Nakamura, D. N. Baker, R. D. Belian, D. J. McComas, M. F. Thomsen, T. Yamamoto, The dependence of pulsating auroral events on energetic electrons and core plasma near the equatorial plane, Proc. Conference on Atmospheric Studies by Optical Methods, 45, 1992.
20. Kokubun, S., Y. Kamide, R. Nakamura, Structures of the distant magnetotail during magnetic storms, Proc. Eighth International Symposium on Solar Terrestrial Physics, pp. 90, 1994.
21. Baker, D. N., J. B. Blake, L. B. Callis, J. R. Cummings, D. Hovestadt, S. Kanekal, B. Klecker, R. A. Mewaldt, R. Nakamura, R. S. Selesnick, New magnetospheric results from the SAMPEX mission, Proc. Taos Workshop on the Earth's Trapped Particle Environment, AIP Press, pp. 3, 1996.
22. Nagai, T., R. Nakamura, S. Kokubun, T. Yamamoto, T. Mukai, Plasma sheet dynamics during substorms with Geotail observation, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 137, 1998.
23. Kokubun, S., R. Nakamura, T. Mukai, T. Yamamoto, Magnetopause motion and lobe convection in the distant tail: Relationship to substorm activity, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 223, 1998.
24. Sergeev, V. A., M. A. Shukhtina, Y. Kamide, S. Kokubun, R. Nakamura, K. Shiokawa, R. P. Lepping, S. A. Romanov, T. J. Hughes, O. A. Troshichev, K. Yumoto, Orientation of solar wind discontinuities: Implications for substorm studies, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 277, 1998.
25. Daglis, I. A., Y. Kamide, G. Kasotakis, C. Mouikis, B. Wilken, E. T. Sarris, R. Nakamura, Ion Composition in the inner magnetosphere: Its importance and its potential role as a discriminator between storm-time substorms and non-storm substorms, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 767, 1998.

26. Grande, M., C. H. Perry, A. Hall, Y. Kamide, R. Nakamura, J. Fennel, B. Wilken, Superposed epoch analysis of magnetospheric composition and Dst during stormtime and quiet-time substorms, in "SUBSTORMS-4", Terra Sci. Pub./Kluwer Acad. Pub., pp. 773, 1998.
27. Mishin, V. M., T. Saifudinova, A. Bazarzhapov, C. T. Russell, W. Baumjohann, R. Nakamura, M. Kubyshkina, Tail stretching and different types of substorm onset, Proc. 5th International Conference on Substorms, St. Petersburg, Russia, ESA SP-443, 63-66, 2000.
28. Sergeev, V. A., M. V. Kubyshkina, K. Liou, G. Parks, R. Nakamura, T. Mukai, J.-A. Sauvaud, Two kinds of magnetotail response to the enhanced energy loading compared, Proc. 5th International Conference on Substorms, St. Petersburg, Russia, ESA SP-443, 75-78, 2000.
29. Baumjohann, W., Schoedel, R., R. Nakamura, Burst of fast magnetotail flux transport, Proc. 5th International Conference on Substorms, St. Petersburg, Russia, ESA SP-443, 145-148, 2000.
30. Biernat, H. K., V. S. Semenov, N. A. Erkaev, R. Nakamura, W. Baumjohann, S. Mühlbachler, C. J. Farrugia, D. F. Vogl, R. P. Rijnbeek: Some signatures of magnetic field line reconnection. SPIE Proceedings, 4678, 498, 2001.
31. Biernat, H. K., S. Mühlbachler, C. J. Farrugia, R. Nakamura, V. S. Semenov, N. V. Erkaev, W. Baumjohann, D. F. Vogl, D. Langmayr: Reconnection-associated discontinuities—Isotropic versus anisotropic plasma conditions. In Proc. 4th Intl. Conf. Problems of Geocosmos, ed. by V.S. Semenov et al., pp. 42, St. Petersburg, 2002.
32. Runov, A., Y. Asano, Z. Vörös, R. Nakamura, W. Baumjohann, A. Balogh, H. Reme, G. Paschmann, J. Quinn, and C. McIlwain, Cluster magnetotail probe during the substorm 13 September, 2002, Proc. 7th Int. Conf. Substorms, Eds. N. Ganushkina and T. Pulkkinen, Finnish Meteorological Inst., Helsinki, 188-194, 2004.
33. Draper, N. C., M. Lester, J. A. Wild, S. E. Milan, G. Provan, A. Grocott, S. W. H. Cowley, A. N. Fazakerley, A. Lahiff, J. A. Davies, J.-M. Bosqued, J. P. Dewhurst, R. Nakamura, C. J. Owen, Simultaneous SuperDarn and Cluster observations of the growth and expansion phases of a substorm, Proc. 7th Int. Conf. Substorms, Eds. N. Ganushkina and T. Pulkkinen, Finnish Meteorological Inst., Helsinki, 103-106, 2004.
34. Penz, T., V. S. Semenov, V. V. Ivanova, I. B. Ivanov, V. A. Sergeev, R. Nakamura, M. F. Heyn, I. V. Kubyshkin, H. K. Biernat, Application of a reconstruction method for the reconnection rate applied to Cluster data from the Earth magnetotail, Proc. of Problems of Geocosmos 5, Ed. Institute of Physics, State University St. Petersburg, Russia, 109-112, 2004.
35. Nagai, T., R. Nakamura, T. Hori, S. Kokubun, The loading-unloading process in the magnetotail during a prolonged steady southward IMF Bz period, In: Frontiers in Magnetospheric Plasma Physics, Eds. M. Hoshino et al., Elsevier-Pergamon, Amsterdam, 190-193, 2005.
36. Biernat, H. K., N.V. Erkaev, I.L. Arshukova, C.J. Farrugia, H. Lammer, T. Penz, U.V. Amerstorfer, D.F. Vogl, T. Zhang, K. Schwingenschuh, R. Nakamura, W. Baumjohann, H. Gunell, M. Holmström, E. Kallio, S. Orsini, A. Milillo, K. Gether, M. Leitner: Aspects of solar wind interaction with Venus. In Proc. Solar-Planetary Relations 2005, ed. by H.K. Biernat et al., pp. 153-206, Research Signpost, Trivandrum, 2005.
37. Sergeev, V. A., S. Apatemko, A. Runov, W. Baumjohann, R. Nakamura, T. Zhang, B. Klecker, J.-A. Sauvaud, P. Louarn: Probing the large-amplitude flapping oscillations of current sheet with Cluster

spacecraft. In Proc. Int. Conf. Problems of Geocosmos 2004, ed. by A.A. Kovtun et al., pp. 117-122, St. Petersburg State University, St. Petersburg, 2005.

38. Penz, T., V. V. Ivanova, V. S. Semenov, I. B. Ivanov, V. A. Sergeev, R. Nakamura, H. K. Biernat, I. V. Kubyshkin, M. F. Heyn, Reconstruction of nightside flux transfer event using Cluster data, in "Physics of auroral phenomena", Proc. XXVIII Annual Seminar, Apatity, Kola Science Center, Russian Academy of Science, pp. 44-47, 2005.
39. Kiehas, S. A., V. S. Semenov, I. V. Kubyshkin, T. Penz, H. K. Biernat, D. Langmyr, A. Runov, R. Nakamura, Magnetic field and shock behavior in the time-dependent Petschek reconnection model, in "Physics of auroral phenomena", Proc. XXVIII Annual Seminar, Apatity, Kola Science Center, Russian Academy of Science, pp. 17-20, 2005.
40. Zhang, T. L., M. Volwerk, R. Nakamura, W. Baumjohann, A. Runov, C.M. Carr, A. Balogh, J.K. Shi, H.U. Eichelberger, H. Lammer and H. Lichtenegger, Double Star initial results of magnetotail current sheet, in "Physics of auroral phenomena", Proc. XXVIII Annual Seminar, Apatity, Kola Science Center, Russian Academy of Science, pp. 82-88, 2005
41. Owen, C.J., A.N. Fazakerley, S.J. Schwartz, T.S. Horbury, W. Baumjohann, R. Nakamura, P. Louarn, J.-A. Sauvaud, A. Vaivads, A. Roux and O. Lecontel: Multi-point, multi-scale investigations of fundamental plasma processes in the Earth's magnetosphere. ESA SP-588, 185-192, 2006.
42. Petrukovich, A. A., W. Baumjohann, R. Nakamura, A. Runov, A. Balogh: Oscillations of flux tube slippage in the quiet plasma sheet. ESA SP-598, P4.12, 2006.
43. Shi, J. K., T. L. Zhang, Z. W. Cheng, Z. X. Liu, R. Nakamura, C. Carr, A. Balogh, ESA SP-598, P4.16, 2006.
44. Volwerk, M., Z. Vörös, T. Takada, W. Baumjohann, R. Nakamura, A. Runov: Cluster measurements of ULF pulsations in the Earth's magnetotail. ESA SP-598, P4.19, 2006.
45. Horbury, T., P. Louarn, M. Fujimoto, W. Baumjohann, L. G. Blomberg, S. Barabash, P. Canu, K.-H. Glassmeier, H. Koskinen, R. Nakamura, C. Owen, T. Pulkkinen, A. Roux, J.-A. Sauvaud, S. J. Schwartz, K. Svenes, A. Vaivads, Cross-Scale: A multi-spacecraft mission to study cross-scale coupling in space plasmas, ESA SP-598, P7.5, 2006.
46. Amm, O., R. Nakamura, H. U. Frey, Y. Ogawa, M. Kubyshkina, A. Balogh, and H. Reme. Substorm topology in the ionosphere and magnetosphere during a flux rope event in the magnetotail, ESA SP-598, P8.4, 2006.
47. Sergeev, V. A., A. Runov, W. Baumjohann, R. Nakamura, T.L. Zhang, S. Apatenkov, A. Balogh, H. Reme, J.-A. Sauvaud: Cluster results on the magnetotail current sheet structure and dynamics. ESA SP-598, P9.2, 2006.
48. Takada, T., R. Nakamura, W. Baumjohann, Y. Asano, M. Volwerk, T. L. Zhang, B. Klecker, H. Rème, E. A. Lucek, and C. Carr, BBFs deceleration and its relationship to magnetospheric configuration: Cluster and Double Star TC1 observation, In Proc. 6th Int. Conf. Problems of Geocosmos, ed. by V.N. Troyan et al., pp. 190-193, St. Petersburg, 2006.
49. Kiehas, S. A., I. V. Kubyshkin, V. S. Semenov, T. Penz, H. K. Biernat, R. Nakamura, Determination of reconnection parameters based on the time-history of nightside flux transfer events Proc. 6th Int. Conf. Problems of Geocosmos, ed. by V.N. Troyan et al., pp. 75-78, St. Petersburg, 2006

50. Asano, Y., R. Nakamura, A. Runov, W. Baumjohann, T. Takada, I. Shinohara, A. Balogh, B. Klecker, H. Rème: Formation of the thin current sheets in substorms and its relation to magnetic reconnection. In Proc. 8th Int. Conf. Substorms, ed. by M. Syrjäsuo and E. Donovan, Calgary, pp. 7-11, 2006.
51. Runov, A., I.O. Voronkov, Y. Asano, R. Nakamura, W. Baumjohann, M. Volwerk, T. Takada, Z. Vörös, T.L. Zhang, A. Vaivads, S. Haaland, H. Rème, A. Balogh: Cluster observations during pseudo-breakups and substorms. In Proc. 8th Int. Conf. Substorms, ed. by M. Syrjäsuo and E. Donovan, Calgary, pp. 269-274, 2006.
52. V.A. Sergeev, M. Kubyshkina, W. Baumjohann, R. Nakamura, A. Runov, Z. Vörös, T.L. Zhang, K.-H. Glassmeier, J.-A. Sauvaud, P. Daly, V. Angelopoulos, H. Frey, H. Singer: Magnetic reconnection and current disruption in the inner magnetosphere: A case study. In Proc. 8th Int. Conf. Substorms, ed. by M. Syrjäsuo and E. Donovan, Calgary, pp. 275-278, 2006.
53. Sergeev, V.A., M. Kubyshkina, W. Baumjohann, R. Nakamura, A. Runov, Z. Vörös, T.L. Zhang, K.-H. Glassmeier, J.-A. Sauvaud, P. Daly, V. Angelopoulos, H. Frey, H. Singer: Magnetic reconnection and current disruption in the inner magnetosphere: A case study. In Proc. 8th Int. Conf. Substorms, ed. by M. Syrjäsuo and E. Donovan, Calgary, pp. 275-278, 2006.
54. Petrukovich, A.A., T.L. Zhang, W. Baumjohann, R. Nakamura, A. Runov, A. Balogh: Slipping deformation of the plasma sheet magnetic structure. In Proc. XXIX Workshop Physics of Auroral Phenomena, pp. 108-111, Apatity, 2006
55. Asano, Y., R. Nakamura, M. Fujimoto, I. Shinohara, C.J. Owen, A.N. Fazakerley, T. Takada, A. Runov, W. Baumjohann, T. Nagai, E.A. Lucek, H. Rème: Multipoint observations of plasma distributions around an X line. In: AIP Conf. Proc. 1144, American Institute of Physics, Melville, 40-43, 2009.
56. Baumjohann, W., T. Horbury, S. Schwartz, P. Canu, P. Louarn, M. Fujimoto, R. Nakamura, C. Owen, A. Roux, A. Vaivads: The Cross-Scale mission. In: AIP Conf. Proc. 1144, American Institute of Physics, Melville, 25-28, 2009.
57. Petrukovich, A.A., W. Baumjohann, R. Nakamura, A. Runov, A. Balogh, H. Rème: Scales in a thinning plasma sheet. In: AIP Conf. Proc. 1144, American Institute of Physics, Melville, 1-4, 2009.