

## Publications, related to reconnection and MMS, and involving IRAP scientists

### Instrument and *SCIENCE* papers :

Pollock, C., T. Moore, A. Jacques, J. Burch, U. Gliese, Y. Saito, T. Omoto, L. Avanov, A. Barrie, V. Coffey, J. Dorelli, D. Gershman, B. Giles, T. Rosnack, C. Salo, S. Yokota, M. Adrian, **C. Austin**, C. Auletti, S. Aung, V. Bigio, N. Cao, M. Chandler, D. Chornay, K. Christian, G. Clark, G. Collinson, T. Corris, A. De Los Santos, R. Devlin, T. Diaz, T. Dickerson, C. Dickson, A. Diekmann, F. Diggs, C. Duncan, A. Figueroa-Vinas, C. Firman, M. Freeman, N. Galassi, K. Garcia, G. Goodhart, D. Guererro, J. Hageman, J. Hanley, E. Hemminger, M. Holland, M. Hutchins, T. James, W. Jones, S. Kreisler, J. Kujawski, V. Lavu, J. Lobell, **E. LeCompte**, A. Lukemire, E. MacDonald, A. Mariano, T. Mukai, K. Narayanan, Q. Nguyen, M. Onizuka, W. Paterson, S. Persyn, B. Piepgrass, F. Cheney, A. Rager, T. Raghuram, A. Ramil, L. Reichenthal, H. Rodriguez, **J. Rouzaud**, A. Rucker, Y. Saito, M. Samara, **J.-A. Sauvaud**, D. Schuster, M. Shappirio, K. Shelton, D. Sher, D. Smith, K. Smith, S. Smith, D. Steinfeld, R. Szymkiewicz, K. Tanimoto, J. Taylor, C. Tucker, K. Tull, A. Uhl, J. Vloet, P. Walpole, S. Weidner, D. White, G. Winkert, P.-S. Yeh, M. Zeuch (2016), Fast Plasma Investigation for Magnetospheric Multiscale, *Space Sci. Rev.*, DOI: 10.1007/s11214-016-0245-4.

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. Petrinec, K. J. Trattner, **B. Lavraud**, P. H. Reiff, W. Baumjohann, W. Magnes, M. Steller, W. Lewis, Y. Saito, V. Coffey, and M. Chandler (2016), Electron-Scale Measurements of Magnetic Reconnection in Space, *Science*, DOI: 10.1126/science.aaf2939.

### Regular papers:

**Vernisse, Y., B. Lavraud**, S. Eriksson, D. J. Gershman, J. Dorelli, C. Pollock, B. Giles, N. Aunai, L. Avanov, J. Burch, M. Chandler, V. Coffey, **J. Dargent**, R. E. Ergun, C. J. Farrugia, **V. Génot**, D. Graham, H. Hasegawa, **C. Jacquy, I. Kacem**, Y. Khotyaintsev, O. Le Contel, W. Li, W. Magnes, **A. Marchaudon**, T. Moore, W. Paterson, **E. Penou**, T. D. Phan, A. Retino, C. T. Russell, Y. Saito, **J.-A. Sauvaud**, R. Torbert, F. D. Wilder, and S. Yokota (2016), Signatures of complex magnetic topologies from multiple reconnection sites induced by Kelvin-Helmholtz instability, *J. Geophys. Res.*, accepted.

**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, S. Eriksson, R. Ergun, C. J. Farrugia, S. A. Fuselier, **V. Génot**, E. Grigorenko, H. Hasegawa, **C. Jacquy, I. Kacem**, 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, and S. Yokota (2016), Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause, *Geophys. Res. Lett.*, 43, doi:10.1002/2016GL068359.

**Dargent, J.**, N. Aunai, G. Belmont, N. Dorville, **B. Lavraud**, and M. Hesse (2016), Full PIC simulations of kinetic equilibria and role of the initial current sheet on steady asymmetric magnetic reconnection, *J. Plasma Phys.*, 82, 3, 905820305, doi:10.1017/S002237781600057X.

**Zhang, Y. C.**, C. Shen, **A. Marchaudon**, Z. J. Rong, **B. Lavraud**, A. Fazakerley, Z. Yao, B. Mihaljcic, Y. Ji, Y. H. Ma, and Z. X. Liu (2016), First in situ evidence of electron pitch angle scattering due

to magnetic field line curvature in the Ion diffusion region, *J. Geophys. Res.*, 121, 5, 4103-4110, doi: 10.1002/2016JA022409.

**Lavraud, B.**, and D. E. Larson (2016), Correcting moments of in situ particle distribution functions for spacecraft electrostatic charging, *J. Geophys. Res.*, 121, doi:10.1002/2016JA022591.

Farrugia, C. J., **B. Lavraud**, R. B. Torbert, M. Argall, **I. Kacem**, W. Yu, L. Alm, J. Burch, C. T. Russell, J. Shuster, J. Dorelli, J. P. Eastwood, R. E. Ergun, S. Fuselier, D. Gershman, B. L. Giles, Y. V. Khotyaintsev, P. A. Lindqvist, H. Matsui, G. T. Marklund, T. D. Phan, K. Paulson, C. Pollock, and R. J. Strangeway (2016), MMS Observations and Non-Force Free Modeling of a Flux Transfer Event Immersed in a Super-Alfvénic Flow, *Geophys. Res. Lett.*, 43, 6070–6077, doi:10.1002/2016GL068758.

Eriksson, S., **B. Lavraud**, F. D. Wilder, B. L. Giles, J. L. Burch, W. Baumjohann, R. E. Ergun, P.-A. Lindqvist, W. Magnes, C. J. Pollock, C. T. Russell, Y. Saito, R. J. Strangeway, R. B. Torbert, D. J. Gershman, Yu. V. Khotyaintsev, J. C. Dorelli, S. J. Schwartz, L. Avanov, E. Grimes, **Y. Vernisse**, A. P. Sturmer, T. D. Phan, G. T. Marklund, T. E. Moore, W. R. Paterson, J. E. Stawarz, and K. A. Goodrich (2016), MMS Observations of Kelvin-Helmholtz-Induced Magnetic Reconnection, *Geophys. Res. Lett.*, 43, 5606–5615, doi:10.1002/2016GL068783.

Aunai, N., M. Hesse, **B. Lavraud**, **J. Dargent**, and R. Smets (2016), Orientation of the X-line in asymmetric magnetic reconnection, *J. Plasma Phys.*, 82, 4, 535820401, doi: 10.1017/S0022377816000647.

Toledo-Redondo, S., M. Andre, A. Vaivads, Yu. V. Khotyaintsev, **B. Lavraud**, D. B. Graham, A. Divin, and N. Aunai (2016), Cold ion heating at the dayside magnetopause during magnetic reconnection, *Geophys. Res. Lett.*, 43, doi:10.1002/2015GL067187.

Egedal, J., A. Le, W. Daughton, B. Wetherington, P. A. Cassak, L.-J. Chen, **B. Lavraud**, R. B. Torbert, J. Dorelli, D. J. Gershman, and L. A. Avanov (2016), Spacecraft observations and analytic theory of crescent-shaped electron distributions in asymmetric magnetic reconnection, *Phys. Rev. Lett.*, 117, 185101.

Le Contel, O., A. Retino, H. Breuillard, L. Mirioni, P. Robert, A. Chasapis, **B. Lavraud**, T. Chust, L. Rezeau, F. D. Wilder, D. B. Graham, P.-A. Lindqvist, Y. V. Khotyaintsev, G. Marklund, R. E. Ergun, K. A. Goodrich, M. R. Argall, J. L. Burch, R. B. Torbert, J. Needell, M. Chutter, D. Rau, I. Dors, J. Macri, C. T. Russell, W. Magnes, R. J. Strangeway, K. R. Bromund, H. K. Leinweber, F. Plaschke, D. Fischer, B. J. Anderson, G. Le, T. E. Moore, C. J. Pollock, B. L. Giles, D. J. Gershman, J. Dorelli, L. Avanov, and Y. Saito (2016), Whistler mode waves and Hall fields detected by MMS during a dayside magnetopause crossing, *Geophys. Res. Lett.*, 43, 5943–5952, doi:10.1002/2016GL068968.

Toledo-Redondo, S., M. Andre, Y. Khotyaintsev, A. Vaivads, A. Walsh, W. Li, D. B. Graham, **B. Lavraud**, A. Masson, N. Aunai, A. Divin, J. Dargent, S. Fuselier, D. Gershman, J. Dorelli, B. Giles, L. Avanov, C. Pollock, Y. Saito, T. E. Moore, V. Coffey, M. O. Chandler, P. A. Lindqvist, R. Torbert, and C. T. Russell (2016), Cold ion demagnetization near the X-line of magnetic reconnection, *Geophys. Res. Lett.*, 43, 6759–6767, doi:10.1002/2016GL069877.

Wang, S., L. - J. Chen, M. Hesse, D. J. Gershman, J. Dorelli, B. Giles, R. B. Torbert, C. J. Pollock, **B. Lavraud**, R. Strangeway, R. Ergun, J. Burch, L. Avanov, T. E. Moore, and Y. Saito (2016), Ion demagnetization in the magnetopause current layer observed by MMS, *Geophys. Res. Lett.*, 43, 4850–4857, doi:10.1002/2016GL069406.

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, Yu. V. Khotyaintsev, J. Drake, M. A. Shay, R. Nakamura, and G. Marklund (2016), Magnetospheric Multiscale Observations of the Electron Diffusion Region of Large Guide Field Magnetic Reconnection, *Phys. Rev. Lett.*, 117, 1, id.015001, doi: 10.1103/PhysRevLett.117.015001.

- Li, W., M. Andre, Y.V. Khotyaintsev, A. Vaivads, D. B. Graham, S. Toledo-Redondo, C. Norgren, P. Henri, C. Wang, B. Tang, S. Eriksson, **B. Lavraud**, Y. Vernisse, D. L. Turner, J. Burch, R. Torbert, W. Magnes, C. T. Russell, J. B. Blake, B. Mauk, B. Giles, C. Pollock, J. Fennell, A. Jaynes, L. A. Avanov, J. C. Dorelli, D. J. Gershman, W. R. Paterson, Y. Saito, and R. J. Strangeway (2016), Kinetic evidence of magnetic reconnection due to Kelvin-Helmholtz wave, *Geophys. Res. Lett.*, 43, 5635–5643, doi:10.1002/2016GL069192.
- Eriksson, E., A. Vaivads, D. B. Graham, Yu. V. Khotyaintsev, E. Yordanova, H. Hietala, M. André, L. A. Avanov, J. C. Dorelli, D. J. Gershman, B. L. Giles, **B. Lavraud**, W. R. Paterson, C. J. Pollock, Y. Saito, W. Magnes, C. Russell, R. Torbert, R. Ergun, P - A. Lindqvist, and J. Burch (2016), Strong current sheet at a magnetosheath jet: Kinetic structure and electron acceleration, *J. Geophys. Res. Space Physics*, 121, doi:10.1002/2016JA023146.
- Gershman, D. J., J. C. Dorelli, A. F-Viñas, L. A. Avanov, U. Gliese, A. C. Barrie, V. Coffey, M. Chandler, C. Dickson, E. A. MacDonald, C. Salo, M. Holland, Y. Saito, J.-A. Sauvaud, **B. Lavraud**, W. R. Paterson, R. Torbert, L.-J. Chen, K. Goodrich, C. T. Russell, R. J. Strangeway, B. L. Giles, C. J. Pollock, T. E. Moore, and J. L. Burch (2016), Electron dynamics in a sub-proton-gyroscale magnetic hole, *Geophys. Res. Lett.*, 43, 4112–4118, doi:10.1002/2016GL068545.
- Chen, L.-J., M. Hesse, S. Wang, D. Gershman, R. Ergun, C. Pollock, R. Torbert, W. Daughton, N. Bessho, J. Dorelli, B. Giles, R. Strangeway, C. Russell, Y. Khotyaintsev, J. Burch, T. Moore, **B. Lavraud**, T. Phan, and L. Avanov (2016), Electron energization and mixing observed by MMS in the vicinity of an electron diffusion region during magnetopause reconnection, *Geophys. Res. Lett.*, 43, 6036–6043, doi:10.1002/2016GL069215.
- Kitamura, N., H. Hasegawa, Y. Saito, I. Shinohara, S. Yokota, T. Nagai, C. J. Pollock, B. L. Giles, T. E. Moore, J. C. Dorelli, D. J. Gershman, L. A. Avanov, W. R. Paterson, V. N. Coffey, M. O. Chandler, J. A. Sauvaud, **B. Lavraud**, R. B. Torbert, C. T. Russell, R. J. Strangeway, and J. L. Burch (2016), Shift of the magnetopause reconnection line to the winter hemisphere under southward IMF conditions: Geotail and MMS observations, *Geophys. Res. Lett.*, 43, 5581–5588, doi:10.1002/2016GL069095.
- Nagai, T., N. Kitamura, H. Hasegawa, I. Shinohara, S. Yokota, Y. Saito, R. Nakamura, B. L. Giles, C. J. Pollock, T. E. Moore, J. C. Dorelli, D. J. Gershman, W. A. 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, and J. L. Burch (2016), Thick escaping magnetospheric ion layer in magnetopause reconnection with MMS observations, *Geophys. Res. Lett.*, 43, 6028–6035, doi:10.1002/2016GL069085.
- Norgren, C. D. B. Graham, Yu. V. Khotyaintsev, M. Andre, A. Vaivads, L.-J. Chen, P.-A. Lindqvist, G. T. Marklund, R. E. Ergun, W. Magnes, R. J. Strangeway, C. T. Russell, 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, and J. L. Burch (2016), Electron demagnetization in asymmetric magnetic reconnection, *Geophys. Res. Lett.*, 43, 6724–6733, doi:10.1002/2016GL069205.
- André, M., W. Li, S. Toledo-Redondo, Y. Khotyaintsev, A. Vaivads, D. B. Graham, C. Norgren, J. Burch, P.-A. Lindqvist, G. Marklund, R. Ergun, R. Torbert, W. Magnes, C. Russell, B. Giles, C. Pollock, D. T. Young, L. A. Avanov, J. C. Dorelli, D. J. Gershman, W. R. Paterson, **B. Lavraud**, and Y. Saito (2016), Magnetic reconnection and modification of the Hall physics due to cold ions at the magnetopause, *Geophys. Res. Lett.*, 43, 6705–6712, doi:10.1002/2016GL069665.
- Phan, T. D., J. P. Eastwood, P. A. Cassak, M. Øieroset, J. T. Gosling, D. J. Gershman, F. S. Mozer, M. A. Shay, M. Fujimoto, W. Daughton, J. F. Drake, J. L. Burch, R. B. Torbert, R. E. Ergun, L. J. Chen, S. Wang, C. Pollock, J. C. Dorelli, **B. Lavraud**, B. L. Giles, Y. Saito, L. A. Avanov, W. Paterson, R. J. Strangeway, C. T. Russell, Y. Khotyaintsev, P. A. Lindqvist, M. Oka, and F. D. Wilder (2016), MMS observations of electron-scale filamentary currents in the reconnection exhaust and near the X-line, *Geophys. Res. Lett.*, 43, 6060–6069, doi:10.1002/2016GL069212.

- Øieroset, M., T. D. Phan, C. Haggerty, M. A. Shay, J. P. Eastwood, D. J. Gershman, J. F. Drake, M. Fujimoto, R. E. Ergun, F. S. Mozer, M. Oka, R. B. Torbert, J. L. Burch, S. Wang, L. J. Chen, M. Swisdak, C. Pollock, J. C. Dorelli, S. A. Fuselier, **B. Lavraud**, B. L. Giles, Y. Saito, L. A. Avanov, W. Paterson, R. J. Strangeway, C. T. Russell, Y. Khotyaintsev, P. A. Lindqvist, and K. Malakit (2016), MMS observations of large guide field symmetric reconnection between colliding reconnection jets at the center of a magnetic flux rope at the magnetopause, *Geophys. Res. Lett.*, 43, 5536–5544, doi:10.1002/2016GL069166.
- 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, and S. Wang (2016), Ion-scale secondary flux-ropes generated by magnetopause reconnection as resolved by MMS, *Geophys. Res. Lett.*, 43, 4716–4724, doi:10.1002/2016GL068747.
- Hasegawa, H., N. Kitamura, Y. Saito, T. Nagai, I. Shinohara, S. Yokota, C. J. Pollock, B. L. Giles, J. C. Dorelli, D. J. Gershman, L. A. Avanov, S. Kreisler, W. R. Paterson, M. O. Chandler, V. Coffey, J. L. Burch, R. B. Torbert, T. E. Moore, C. T. Russell, R. J. Strangeway, G. Le, M. Oka, T. D. Phan, **B. Lavraud**, S. Zenitani, and M. Hesse (2016), Decay of mesoscale flux transfer events during quasi-continuous spatially-extended reconnection at the magnetopause, *Geophys. Res. Lett.*, 43, 4755–4762, doi:10.1002/2016GL069225.
- Yordanova, E., Z. Voros, A. Varsani, D. Graham, C. Norgren, Y. Khotyaintsev, R. Nakamura, A. Vaivads, P.-A. Lindqvist, W. Magnes, W. Baumjohann, D. Fischer, F. Plaschke, E. Erikson, Y. Narita, C.T. Russel, R.J. Strangeway, O. LeContel, 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**, and Y. Saito (2016), Electron scale structures and magnetic reconnection signatures in the turbulent magnetosheath, *Geophys. Res. Lett.*, 43, 5969–5978, doi:10.1002/2016GL069191.
- 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. Oieroset, J. Drake, M. A. Shay, P. A. Cassak, R. Nakamura, M. Zhou, M. Ashour-Abdalla, and M. André (2016), 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.
- Graham, D. B., Yu. V. Khotyaintsev, C. Norgren, A. Vaivads, M. André, P.-A. Lindqvist, G. T. Marklund, R. E. Ergun, W. R. Paterson, D. J. Gershman, B. L. Giles, C. J. Pollock, J. C. Dorelli, L. A. Avanov, **B. Lavraud**, Y. Saito, W. Magnes, C. T. Russell, R. J. Strangeway, R. B. Torbert, and J. L. Burch (2016), Electron currents and heating in the ion diffusion region of asymmetric reconnection, *Geophys. Res. Lett.*, 43, 4691–4700, doi:10.1002/2016GL068613.
- Zhou, M., M. Ashour-Abdalla, J. Berchem, R. J. Walker, H. Liang, M. El-Alaoui, M. L. Goldstein, P. -A. Lindqvist, G. Marklund, Y. V. Khotyaintsev, R. E. Ergun, F. D. Wilder, C. T. Russell, R. J. Strangeway, C. Zhao, W. R. Paterson, B. L. Giles, C. J. Pollock, R. B. Torbert, J. L. Burch, J. C. Dorelli, D. J. Gershman, L. A. Avanov, **B. Lavraud**, and M. O. Chandler (2016), Observation of high-frequency electrostatic waves in the vicinity of the reconnection ion diffusion region by the spacecraft of the Magnetospheric Multiscale (MMS) mission, *Geophys. Res. Lett.*, 43, 4808–4815, doi:10.1002/2016GL069010.
- Khotyaintsev, Yu. V., D. B. Graham, C. Norgren, E. Eriksson, W. Li, A. Johlander, A. Vaivads, M. Andre, P. L. Pritchett, A. Retino, 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. Argall, 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, and J. L. Burch (2016), Electron jet of asymmetric reconnection, *Geophys. Res. Lett.*, 43, 5571–5580, doi:10.1002/2016GL069064.

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. J. 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. Mauk, I. Cohen, D. N. Baker, A. Jaynes, R. E. Ergun, H. J. Singer, J. A. Slavin, L. Kepko, T. E. Moore, **B. Lavraud**, V. Coffey and Y. Saito (2016), 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.

**Proceedings and public outreach papers:**

Le Contel, O., **B. Lavraud**, A. Retino, **C. Jacquy**, H. Breuillard, **Y. Vernisse**, A. Chasapis, N. Aunai, **J. Dargent**, T. Chust, L. Rezeau, L. Mirioni, **I. Kacem**, **V. Génot**, **E. Penou**, **J.-A. Sauvaud**, P. Leroy, D. Alison, C. Coillot, **C. Aoustin**, **E. Le Comte**, and **J. Rouzaud**, First results of the Magnetospheric Multiscale mission (MMS), Rapport au COSPAR, pp 42 – 43, 2016.