

EFW Refereed publications 2019

Aryan, H., S. N. Walker, M. A. Balikhin and K. H. Yearby, Equatorial magnetosonic waves observed by Cluster satellites: The Chirikov resonance overlap criterion, *J. Geophys. Res.: Space Phys.*, 124, 2864–2872, <https://doi.org/10.1029/2019JA026680>, 2019.

Borovsky, J.E., J. Birn, M.M. Echim, S. Fujita, R.L. Lysak, D.J. Knudsen, O. Marghitsu, A. Otto, T.-H. Watanabe and T. Tanaka, Quiescent discrete auroral arcs: A review of magnetospheric generator mechanisms, *Space Sci. Rev.*, 216, 1 (2020). <https://doi.org/10.1007/s11214-019-0619-5>, accepted 2019.

Dimmock, A. P., C. T. Russell, R. Z. Sagdeev, V. Krasnoselskikh, S. N. Walker, C. Carr, I. Dandouras, C. P. Escoubet, N. Ganushkina, M. Gedalin, **Y. V. Khotyaintsev**, H. Aryan, T. I. Pulkkinen and M. A. Balikhin, Direct evidence of nonstationary collisionless shocks in space plasmas. *Sci. Adv.* 5, eaau9926, doi:10.1126/sciadv.aau9926, 2019.

Fu, H. S., Y. Xu, A. Vaivads and Y. V. Khotyaintsev, Super-efficient electron acceleration by an isolated magnetic reconnection, *Astrophys. J. Lett.*, 870, L22, doi:10.3847/2041-8213/aafa75, 2019.

Echim, M.M., H. Lamy, J. De Keyser, R. Maggiolo, H. Gunell, and C. S. Wedlund, A method to estimate the physical properties of magnetospheric generators from observations of quiet discrete auroral arcs, *J. Geophys. Res. Space Phys.*, 124, 10283–10293. <https://doi.org/10.1029/2019JA026969>, 2019.

Fu, S., B. Ni, R. Zhou, X. Cao and X. Gu, Combined scattering of radiation belt electrons caused by Landau and bounce resonant interactions with magnetosonic waves, *Geophysical Research Letters*, 46, 10313–10321; <https://doi.org/10.1029/2019GL084438>, 2019.

Guo, R., Z.Y. Pu, Z. Yao, M. Dunlop, Y.V. Bogdanova, Y. Wei, X. Wang, C. Xiao, J. He, S. Fu, L. Xie, A.N. Fazakerley and W. Wan, A three-dimensional model of spiral null pair to form ion-scale flux ropes in magnetic reconnection region observed by Cluster, *Phys. Plasmas*, 26, 112901, 2019

Huang, J., M. Zhou, H. Li, X. Deng, J. Liu and S. Huang, Small-scale dipolarization fronts in the Earth's magnetotail, *Earth Planetary Phys.*, 3: 358-364, doi:10.26464/epp2019036, 2019.

Malykhin, A.Y., E. E. Grigorenko, E. A. Kronberg, P. W. Daly and L. V. Kozak, Acceleration of protons and heavy ions to suprathermal energies during dipolarizations in the near-Earth magnetotail, *Ann. Geophys.*, 37, 549–559, <https://doi.org/10.5194/angeo-37-549-2019>, 2019

Ohma, A., N. Østgaard, J. P. Reistad, P. Tenfjord, K. M. Laundal, T. Moretto-Jorgensen, S. E. Haaland, P. Krčelić and S. Milan, Observations of asymmetric lobe convection for weak and strong tail activity, *J. Geophys. Res. Space Phys.*, 124, 9999–10017. <https://doi.org/10.1029/2019JA026773>, 2019.

Ren, J., Q. G. Zong, Y. F. Zhu, X. Z. Zhou and S. J. Gu, Field-aligned structures of the poloidal-mode ULF wave electric field: Phase relationship implications, *J. Geophys. Res.: Space Phys.*, 124, 3410– 3420; <https://doi.org/10.1029/2019JA026653>, 2019.

Sadeghi, S. and M.R. Emami, Large-scale altitude distribution profile of auroral parallel electric potentials: A statistical analysis of Cluster data, *Adv. Space Res.*, 64, 2, 378-384, 2019; <https://doi.org/10.1016/j.asr.2019.03.043>, 2019.

Sitnov, M., J. Birn, B. Ferdousi, E. Gordeev, **Y. Khotyaintsev**, V. Merkin, T. Motoba, A. Otto, E. Panov, P. Pritchett, F. Pucci, J. Raeder, A. Runov, V. Sergeev, M. Velli and X. Zhou, Explosive magnetic activity, *Space Sci. Rev.*, 215: 31, <https://doi.org/10.1007/s11214-019-0599-5>, 2019.

Yu, F., S. Fu, W. Sun, X. Zhou, L. Xie, H. Liu, D. Zhao, S. Zhao, L. Li, J. Zhang, T. Wu and Y. Xiong, Heating of multi-species upflowing ion beams observed by Cluster on March 28, 2001, *Earth and Planetary Physics*, 3: 204-211. [doi:10.26464/epp2019022](https://doi.org/10.26464/epp2019022), 2019.

Zhao, S. J., S. Y. Fu, W. J. Sun, X. Z. Zhou, Z. Y. Pu, L. Xie, T. Wu, Y. Xiong, H. Zhang, Q. G. Zong and F.B. Yu, Oxygen ion butterfly distributions observed in a magnetotail dipolarizing flux bundle. *J. Geophys. Res. Space Phys.*, 124, 10219–10229. <https://doi.org/10.1029/2019JA027244>, 2019.

PhD thesis 2019

Johlander, Andreas, Ion dynamics and structure of collisionless shocks in space, *PhD thesis*, Uppsala university, Acta Universitatis Upsaliensis, ISBN: 978-91-513-0519-6, 2019.