

Curriculum Vitae

Personal information

Name: Evgeny V. Panov

Birth date: 10.10.1979

Birthplace: Kurgan, USSR

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Main areas of Research

Magnetosphere, Ionosphere, Substorms

Description of academic career and positions held to date

Education:

- PhD from Space Research Institute of the Russian Academy of Sciences, major in space plasma physics, April, 2007
- Moscow Institute of Physics and Technology (State University), major in applied physics and math, 1997-2003

Positions held:

- postdoc at Space Research Institute, Austrian Academy of Sciences, Graz, Austria, May 2008 – now
- postdoc at Max Planck Institute for Solar System Research, Katlenburg-Lindau, Germany, May 2007 – Dec 2007
- doctoral student at Max Planck Institute for Solar System Research, Katlenburg-Lindau, Germany, and at Space Research Institute of Russian Academy of Sciences, Jan 2004 – Apr 2007

- junior scientist at Space Research Institute of Russian Academy of Sciences, Moscow, Russian Federation, Sep 1999 – Dec 2003

Academic Prizes

Invitations to present at scientific conferences:

American Geophysical Union 2010

International Association of Geomagnetism and Aeronomy 2013

International Conference on Substorms 2014

Awards:

Scholarship at Moscow Institute of Physics and Technology State University (Top Russian University in Physical Sciences, <http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/subject-ranking/subject/physical-sciences>)

Phd and Postdoc stipend from Max Planck Society > 50kEUR

Postdoc at Space Research Institute, Austrian Academy of Sciences > 200 kEUR

Peer review activities:

Reviewer at Journal of Geophysical Research (Space Physics), Geophysical Research Letters (>3 papers a year)

Member of

American and European Geophysical Union

10 Most important publications:

1. **Panov, E.V.**; Artemyev, A.V.; Baumjohann, W.; Nakamura, R.; Angelopoulos, V., Transient electron precipitation during oscillatory BBF braking: THEMIS observations and theoretical estimates, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP.3065-3076, doi:10.1002/jgra.50203
2. Nakamura, R.; Baumjohann, W.; **Panov, E.**; Volwerk, M.; Birn, J.; Artemyev, A.; Petrukovich, A.A.; Amm, O.; Juusola, L.; Kubyshkina, M.V.; Apatenkov, S.; Kronberg, E.A.; Daly, P.W.; Fillingim, M.; Weygand, J.M.; Fazakerley, A.; Khotyaintsev, Y., Flow bouncing and electron injection observed by Cluster, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP.2055-2072, doi:10.1002/jgra.50134
3. **Panov, E.V.**; Kubyshkina, M.V.; Nakamura, R.; Baumjohann, W.; Angelopoulos, V.; Sergeev, V.A.; Petrukovich, A.A., Oscillatory flow braking in the magnetotail: THEMIS statistics, *Geophysical Research Letters* (2013), V.40, PP.2505-2510, doi:10.1002/grl.50407
4. **Panov, E.V.**; Baumjohann, W.; Nakamura, R.; Amm, O.; Kubyshkina, .V.; Glassmeier, K.-H.; Weygand, J.M.; Angelopoulos, V.; Petrukovich, A.A.; Sergeev, V.A., Ionospheric response to oscillatory flow braking in the magnetotail, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP. 1529-1544, doi: 10.1002/jgra.50190
5. **Panov, E. V.**; Nakamura, R.; Baumjohann, W.; Kubyshkina, M. G.; Artemyev, A. V.; Sergeev, V. A.; Petrukovich, A. A.; Angelopoulos, V.; Glassmeier, K.-H.; McFadden, J. P.; Larson, D., Kinetic ballooning/interchange instability in a bent plasma sheet, *J. Geophys. Res.* (2012), V.117, A06228, doi: 10.1029/2011JA017496
6. **Panov, E. V.**; Sergeev, V. A.; Pritchett, P. L.; Coroniti, F. V.; Nakamura, R.; Baumjohann, W.; Angelopoulos, V.; Auster, H. U.; McFadden, J. P., Observations of kinetic ballooning/interchange instability signatures in the magnetotail, *Geophys. Res. Lett.* (2012), V.39, L08110, doi: 10.1029/2012GL051668

7. **Panov, E. V.**; Artemyev, A. V.; Nakamura, R.; Baumjohann, W., Two types of tangential magnetopause current sheets: Cluster observations and theory, *J. Geophys. Res.* (2011), V.116, A12204, doi: 10.1029/2011JA016860
8. Birn, J., Nakamura, R., **Panov, E.V.**, Hesse, M., Bursty bulk flows and dipolarization in MHD simulations of magnetotail reconnection", *J. Geophys. Res.* (2011), V.116, A15, A01210, 10.1029/2010JA016083
9. **Panov, E.V.**, Nakamura, R., Baumjohann, W., Angelopoulos, V., Petrukovich, A.A., Retino, A., Volwerk, M., Takada, T., Glassmeier, K.-H., McFadden, J.P., Larson, D., Multiple overshoot and rebound of a bursty bulk flow, *Geophys. Res. Lett.* (2010), V.37, L08103,10.1029/2009GL041971
10. **Panov, E.V.**, Nakamura, R., Baumjohann, W., Sergeev, V. A., Petrukovich, A. A., Angelopoulos, V., Volwerk, M., Retino, A., Takada, T., Glassmeier, K.-H., McFadden, J. P., Larson, D. Plasma Sheet Thickness During A Bursty Bulk Flow Reversal, *J. Geophys. Res.*, (2010), doi: 10.1029/ 2009JA014743

Publication list (refereed articles):**2013**

1. Petrukovich, A.A.; Artemyev, A.V.; Nakamura, R.; **Panov, E.V.**; Baumjohann, W., Cluster observations of $\delta B_z/\delta x$ during growth phase magnetotail stretching intervals, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP.5720-5730, doi:10.1002/jgra.50550
2. **Panov, E.V.**; Artemyev, A.V.; Baumjohann, W.; Nakamura, R.; Angelopoulos, V., Transient electron precipitation during oscillatory BBF braking: THEMIS observations and theoretical estimates, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP.3065-3076, doi:10.1002/jgra.50203
3. **Panov, E.V.**; Kubyshkina, M.V.; Nakamura, R.; Baumjohann, W.; Angelopoulos, V.; Sergeev, V.A.; Petrukovich, A.A., Oscillatory flow braking in the magnetotail: THEMIS statistics, *Geophysical Research Letters* (2013), V.40, PP.2505-2510, doi:10.1002/grl.50407
4. Nakamura, R.; Baumjohann, W.; **Panov, E.**; Volwerk, M.; Birn, J.; Artemyev, A.; Petrukovich, A.A.; Amm, O.; Juusola, L.; Kubyshkina, M.V.; Apatenkov, S.; Kronberg, E.A.; Daly, P.W.; Fillingim, M.; Weygand, J.M.; Fazakerley, A.; Khotyaintsev, Y., Flow bouncing and electron injection observed by Cluster, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP.2055-2072, doi:10.1002/jgra.50134
5. **Panov, E.V.**; Baumjohann, W.; Nakamura, R.; Amm, O.; Kubyshkina, M.V.; Glassmeier, K.-H.; Weygand, J.M.; Angelopoulos, V.; Petrukovich, A.A.; Sergeev, V.A., Ionospheric response to oscillatory flow braking in the magnetotail, *Journal of Geophysical Research (Space Physics)* (2013), V.118, PP. 1529-1544, doi: 10.1002/jgra.50190

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6. Alexandrova, A.; Nakamura, R.; Semenov, V.S.; Kubyshkin, I.V.; Apatenkov, S.; **Panov, E.V.**; Korovinskiy, D.; Biernat, H.; Baumjohann, W.; Glassmeier, K.-H.; McFadden, J.P., Remote estimation of reconnection parameters in the Earth's magnetotail: model and observations, *Annales Geophysicae* (2012), V.30, PP 1727-1741.

7. Wang, Rongsheng; Nakamura, Rumi; Lu, Quanming; Du, Aimin; Zhang, Tielong; Baumjohann, Wolfgang; Khotyaintsev, Yuri V.; Volwerk, Martin; André, Mats; Fujimoto, M.; Nakamura, T. K. M.; Fazakerley, Andrew N.; Du, Jian; Teh, Waileong; **Panov, Evgeny V.**; Zieger, Bertalan; Pan, Yongxin; Lu, San, Asymmetry in the current sheet and secondary magnetic flux ropes during guide field magnetic reconnection, *J. Geophys. Res.* (2012), V.117, A07223, 10.1029/2011JA017384
8. **Panov, E. V.**; Nakamura, R.; Baumjohann, W.; Kubyshkina, M. G.; Artemyev, A. V.; Sergeev, V. A.; Petrukovich, A. A.; Angelopoulos, V.; Glassmeier, K.-H.; McFadden, J. P.; Larson, D., Kinetic ballooning/interchange instability in a bent plasma sheet, *J. Geophys. Res.* (2012), V.117, A06228, doi: 10.1029/2011JA017496
9. Taylor, M. G. G. T.; Hasegawa, H.; Lavraud, B.; Phan, T.; Escoubet, C. P.; Dunlop, M. W.; Bogdanova, Y. V.; Borg, A. L.; Volwerk, M.; Berchem, J.; Constantinescu, O. D.; Eastwood, J. P.; Masson, A.; Laakso, H.; Soucek, J.; Fazakerley, A. N.; Frey, H. U.; **Panov, E. V.**; Shen, C.; Shi, J. K.; Sibeck, D. G.; Pu, Z. Y.; Wang, J.; Wild, J. A., Spatial distribution of rolled up Kelvin-Helmholtz vortices at Earth's dayside and flank magnetopause, *Ann. Geophys.* (2012), V.30, pp.1025-1035, doi: 10.5194/angeo-30-1025-2012
10. **Panov, E. V.**; Sergeev, V. A.; Pritchett, P. L.; Coroniti, F. V.; Nakamura, R.; Baumjohann, W.; Angelopoulos, V.; Auster, H. U.; McFadden, J. P., Observations of kinetic ballooning/interchange instability signatures in the magnetotail, *Geophys. Res. Lett.* (2012), V.39, L08110, doi: 10.1029/2012GL051668
11. Tian, A. M.; Zong, Q. G.; Zhang, T. L.; Nakamura, R.; Du, A. M.; Baumjohann, W.; Glassmeier, K. H.; Volwerk, M.; Hartinger, M.; Wang, Y. F.; Du, J.; Yang, B.; Zhang, X. Y.; **Panov, E.V.**, Dynamics of long-period ULF waves in the plasma sheet: Coordinated space and ground observations, *J. Geophys. Res.* (2012), V.117, A03211, doi: 10.1029/2011JA016551

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12. **Panov, E. V.**; Artemyev, A. V.; Nakamura, R.; Baumjohann, W., Two types of tangential magnetopause current sheets: Cluster observations and theory, *J. Geophys. Res.* (2011), V.116, A12204, doi: 10.1029/2011JA016860

13. Volwerk, M.; Berchem, J.; Bogdanova, Y. V.; Constantinescu, O. D.; Dunlop, M. W.; Eastwood, J. P.; Escoubet, P.; Fazakerley, A. N.; Frey, H.; Hasegawa, H.; Lavraud, B.; **Panov, E. V.**; Shen, C.; Shi, J. K.; Taylor, M. G. G. T.; Wang, J.; Wild, J. A.; Zhang, Q. H.; Amm, O.; Weygand, J. M. Interplanetary magnetic field rotations followed from L1 to the ground: the response of the Earth's magnetosphere as seen by multi-spacecraft and ground-based observations, *Ann. Geophys.* (2011), V.29, PP.1549-1569, doi: 10.5194/angeo-29-1549-2011
14. Savin, S., Zelenyi, L., Amata, E., Budaev, V., Buechner, J., Blecki, J., Balikhin, M., Klimov, S., Korepanov, V.E., Kozak, L., Kudryashov, V., Kunitsyn, V., Lezhen, L., Milovanov, A.V., Nemecek, Z., Nesterov, I., Novikov, D., **Panov, E.**, Rauch, J.-L., Rothkaehl, H., Romanov, S., Safrankova, J., Skalsky, A., Veselov, M. ROY – multiscale magnetospheric mission, *Planet. Space Sci.* (2011), V.59, PP.606-617, 10.1016/j.pss.2010.05.001
15. Nakamura, R., Baumjohann, W., **Panov, E.**, Petrukovich, A.A., Angelopoulos, V., Volwerk, M., Magnes, W., Nishimura, Y., Runov, A., Russell, C.T., Weygand, J.M., Amm, O., Auster, H.U., Bonnell, J., Frey, H., Larson, D., McFadden, J., Flux transport, dipolarization, and current sheet evolution during a double-onset substorm, *J. Geophys. Res.* (2011), V.116, A15, A00I36, 10.1029/2010JA015865
16. Du, A.M., Nakamura, R., Zhang, T.L., **Panov, E.V.**, Baumjohann, W., Luo, H., Xu, W.Y., Lu, Q.M., Volwerk, M., Retin`o, A., Zieger, B., Angelopoulos, V., Glassmeier, K.-H., McFadden, J.P., Larson, D.}, Fast tailward flows in the plasma sheet boundary layer during a substorm on 9 March 2008: THEMIS observations, *J. Geophys. Res.*, (2011), V.116, A15, A03216, 10.1029/2010JA015969
17. Birn, J., Nakamura, R., **Panov, E.V.**, Hesse, M., Bursty bulk flows and dipolarization in MHD simulations of magnetotail reconnection", *J. Geophys. Res.* (2011), V.116, A15, A01210, 10.1029/2010JA016083

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18. **Panov, E.V.**, Nakamura, R., Baumjohann, W., Angelopoulos, V., Petrukovich, A.A., Retin`o, A., Volwerk, M., Takada, T., Glassmeier, K.-H., McFadden, J.P., Larson, D., Multiple overshoot and rebound of a bursty bulk flow, *Geophys. Res. Lett.* (2010), V.37, L08103, 10.1029/2009GL041971

19. Hasegawa, H., Wang, J., Dunlop, M.W., Pu, Z.Y., Zhang, Q.-H., Lavraud, B., Taylor, M.G.G.T., Constantinescu, O.D., Berchem, J., Angelopoulos, V., McFadden, J.P., Frey, H.U., **Panov, E.V.**, Volwerk, M., Bogdanova, Y.V., Evidence for a flux transfer event generated by multiple X-line reconnection at the magnetopause, *Geophys. Res. Lett.* (2010), V.371, L16101, 10.1029/2010GL044219
20. **Panov, E.V.**, Nakamura, R., Baumjohann, W., Sergeev, V. A., Petrukovich, A. A., Angelopoulos, V., Volwerk, M., Retino, A., Takada, T., Glassmeier, K.-H., McFadden, J. P., Larson, D. Plasma Sheet Thickness During A Bursty Bulk Flow Reversal, *J. Geophys. Res.*, (2010), doi: 10.1029/2009JA014743

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21. Hasegawa, H., McFadden, J. P., Constantinescu, O. D., Bogdanova, Y. V., Wang, J., Dunlop, M. W., Angelopoulos, V., Frey, H. U., Takada, T., Lavraud, B., Zhang, Q.-H., Pu, Z. Y., Fazakerley, A. N., **Panov, E. V.**, Volwerk, M., Shen, C., Shi, J. K. Boundary layer plasma flows from high-latitude reconnection in the summer hemisphere for northward IMF: THEMIS multi-point observations *Geophys. Res. Lett.* (2009) V.36, L15107, doi:10.1029/2009GL039410
22. Lavraud, B., Borovsky, J. E., Génot, V., Schwartz, S. J., Birn, J., Fazakerley, A. N., Dunlop, M. W., Taylor, M. G. G. T., Hasegawa, H., Rouillard, A. P., Berchem, J., Bogdanova, Y., Constantinescu, D., Dandouras, I., Eastwood, J. P., Escoubet, C. P., Frey, H., Jacquey, C., **Panov, E.V.**, Pu, Z. Y., Shen, C., Shi, J., Sibeck, D. G., Volwerk, M., Wild, J. A. Tracing solar wind plasma entry into the magnetosphere using ion-to-electron temperature ratio *Geophys. Res. Lett.* (2009), V.36, L18109, doi: 10.1029/2009GL039442