

Publications

Note: Both **S. Joukou** and **S. Joko** in th list below is identical to **Sachiko Arvelius**.

Arvelius, Sachiko: Små jordar i Japan, Populär Astronomi (<http://popast.nu>), nr 2, 2012.

Arvelius, Sachiko, Slapak, R. and the SMILE-II project team: Simulation of Relativistic Electron Precipitation (REP) by means of Geant4 for the SMILE-II project, abstract accepted for *A joint-conference of 39th European Physical Society (EPS) Conference on Plasma Physics and 16th International Congress on Plasma Physics (ICPP)*, Stockholm, June 2012.

Arvelius, Sachiko et al.: Multiple Applications of Electron Tracking Compton Camera (ETCC) and Planning for a Circum-Polar Flight of the Balloon-borne ETCC, *NorWiP (Nordic Women in Physics) Workshop*, Copenhagen Denmark, 2011.

T. Tanimori, S. Arvelius and E. Turunen: Observation of MeV-Gamma-Rays from relativistic electron precipitation using a Electron Tracking Compton Camera with Balloon Borne Experiment, *International Conference of EISCAT (The European Incoherent Scatter Scientific Association)*, Qingdao China, July 2011.

A. Takada, T. Tanimori, H. Kubo, K. Miuchi, S. Kabuki, J. D. Parker, Y. Kishimoto, T. Mizumoto, K. Ueno, S. Kurosawa, S. Iwaki, T. Sawano, K. Taniue, K. Nakamura, N. Higashi, Y. Matsuoka, S. Komura, Y. Sato, S. Arvelius, E. Turunen: SMILE-II: Observation of Celestial and Atmospheric MEV Gamma Rays Using a Balloon-Borne Wide Fields of View Electron-Tracking Compton Camera, In *proceeding of: ESA-PAC 20th Symposium, Volume: ESA SP-700*, Toulouse France, May 2011.

Nilsson, H., Engwall, E., Eriksson, A., P. A. Puhl-Quinn, Arvelius, S.: Centrifugal acceleration in the magnetotail lobes, *Ann. Geophys.*, **28**, 569- , 2010.

S. Arvelius, M. Yamauchi, M. O. Marghitu, K. Seki, Y. Ebihara, I. Dandouras and H. Reme: Inner Magnetospheric O⁺ dynamics inferred from statistical longitudinal distributions of its flux, *Sun & Earth Connections*, Sweden-Japan Joint Space Colloquium (KVA/IRF/JSPS), Stockholm, March 2009.

Arvelius, Sachiko: Reality of Equal Opportunities for Swedish Women in Physics (main text in Japanese), *Journal of the Society of Japanese Women Scientists (SJWS)*, **9**, 67-76 (<http://scienceportal.jp/thesis/science/0907.html>), March 2009.

Arvelius, Sachiko: Acceleration and Heating (or Energisation) of Oxygen Ions at High Altitudes on the basis of Cluster/CIS Observation, Seminar in *Quest for Fundamental Principles in the Universe*, Nagoya University GCOE (Global Core of Excellent) Program (<http://www.gcoe.phys.nagoya-u.ac.jp/content0191.html>), Nagoya Japan, January 2009.

K. Seki, Y. Miyoshi, T. Amano, S. Saito, T. Umeda, Y. Matsumoto, Y. Ebihara and S. Arvelius: GEMSIS-Magnetosphere: A new approach to the self-consistent modeling of the inner magnetosphere during space storms, *SGEPSS (Society of Geomagnetism and Earth, Planetary and Space Sciences) Autumn Conference*, B010-08, Japan, October 2008.

Arvelius, Sachiko et al.: Three-dimentional distribution of H⁺ and O⁺ ions in the Earth's magnetosphere based on the Cluster observation, *JPGU (Japan Geoscience Union) Conference 2008*, E116-1444, Makahari Japan, May 2008.

Arvelius, Sachiko et al.: Near-conjugate O⁺ observations by Cluster and FAST during the magnetic storm of 2001/08/17, *SGEPSS (Society of Geomagnetism and Earth, Planetary and Space Sciences) Autumn Conference*, B006-25, Nagoya Japan, October 2007.

Nilsson, H., Waara, M., Arvelius, S., Marghitu, O., Bouhram, M., Hobara, Y., Yamauchi, M., Lundin, R., Rème, H., Sauvaud, J.-A., Dandouras, I., Balogh, A., Kistler, L. M., Klecker, B., Carlson, C. W., Bavassano-Cattaneo, M. B., and Korth, A.: Characteristics of high altitude oxygen ion energization and outflow as observed by Cluster: a statistical study, *Ann. Geophys.*, **24**, 1099-1112, 2006.

- Arvelius, S., Yamauchi, M., Nilsson, H., Lundin, R. and the CIS Team: Plasma Acceleration/Energization in the Dayside High-Altitude and High-Latitude Region, *GEM (The Geospace Environment Modelling) Workshop*, Aspen CO., June 2006.
- Nilsson, H., Waara, M., Arvelius, S., Yamauchi, M., Lundin, R., Marghitu, O., Bouhram, M., Hobara, Y., and the Cluster/CIS team: Oxygen Ion Outflow observed at High Altitudes; A Statistical Study, *GEM (The Geospace Environment Modelling) Workshop*, Aspen CO., June 2006.
- M. Yamauchi, L. Eliasson, R. Lundin, S. Arvelius and O. Norberg: Oxygen Injection Events observed by Freja Satellite, *GEM (The Geospace Environment Modelling) Workshop*, Aspen CO., June 2006.
- M. Yamauchi, R. Lundin, H. Nilsson, S. Arvelius, Y. Ebihara and Cluster-CIS team: Sub-keV Ring Current Ions: Source, Transport, and O⁺/H⁺ difference, *GEM (The Geospace Environment Modelling) Workshop*, Aspen CO., June 2006.
- Backrud-Ivgren, M., Stenberg, G., André, M., Morooka, M., Hobara, Y., Joko, S., Rönmark, K., Cornilleau-Wehrin, N., Fazakerley, A., and Rème, H.: Cluster observations and theoretical identification of broadband waves in the auroral region, *Ann. Geophys.*, **23**, 3739-3752, 2005.
- Arvelius, Sachiko: Energization and Acceleration of Dayside Polar Outflowing Oxygen (Doctoral Thesis), *IRF Scientific Report 287*, ISSN 0284-1703, ISBN 91-7305-963-3, October 2005.
- Arvelius, S. et al.: Statistical study of relationships between dayside high-altitude and high-latitude O⁺ ion outflows, solar winds and geomagnetic activity, Proceedings of *Cluster and Double Star Symposium – 5th Anniversary of Cluster in Space*, ESTEC/ESA, 2005.
- Arvelius, S., Yamauchi, M., Nilsson, H., Lundin, R., Hobara, Y., Rème, H., Bavassano-Cattaneo, M. B., Paschmann, G., Korth, A., Kistler, L. M., and Parks, G. K.: Statistics of high-altitude and high-latitude O⁺ ion outflows observed by Cluster/CIS, *Ann. Geophys.*, **23**, 1909-1916, 2005.
- Sundkvist, D., Vaivads, A., Andre, M., Wahlund, J.-E., Hobara, Y., Joko, S., Krasnoselskikh, V. V., Bogdanova, Y. V., Buchert, S. C., Cornilleau-Wehrin, N., Fazakerley, A., Hall, J.-O., Rème, H., and Stenberg, G.: Multi-spacecraft determination of wave characteristics near the proton gyrofrequency in high-altitude cusp, *Ann. Geophys.* **23**, 983-995, 2005.
- Nilsson, H., Joko, S., Lundin, R., Rème, H., Sauvaud, J.-A., Dandouras, I., Balogh, A., Carr, C., Kistler, L. M., Klecker, B., Carlson, C., Bavassano-Cattaneo, M. B., and Korth, A.: The structure of high altitude O⁺ energization and outflow: a case study, *Ann. Geophys.*, **22**, 2497-2506, 2004.
- Joko, S., Nilsson, H., Lundin, R., Popielawska, B., Rème, H., Bavassano-Cattaneo, M. B., Paschmann, G., Korth, A., Kistler, L. M., and Parks, G. K.: Shell-like configuration in O⁺ ion velocity distribution at high altitudes in the dayside magnetosphere observed by Cluster/CIS, *Ann. Geophys.*, **22**, 2473-2483, 2004.
- Popielawska, B., Sandahl, I., Joko, S., Stenuit, H., Romanov, S. A., and Zakharov, A. V.: Oxygen ion beams at the boundary of velocity dispersed ion structures in the high-latitude magnetosphere under northward interplanetary magnetic field with a large By-component: Interball-tail observations, *Advances in Space Research*, **31**, 1363-1370, 2003.
- Hatakeyama, S., Hara, T., Fukuda, Y., Hayakawa, T., Inoue, K., Ishihara, K., Ishino, H., Joukou, S., and 42 co-authors of the Kamiokande Collaboration: Measurement of the Flux and Zenith-Angle Distribution of Upward Through-Going Muons in Kamiokande II+III, *Phys. Rev. Lett.*, **81**, 2016-2019, 1998.
- Munakata, K., Kiuchi, T., Yasue, S., (19 co-authors), Joukou, S., and other 32 co-authors of the Kamiokande Collaboration: Large-scale anisotropy of the cosmic-ray muon flux in Kamiokande, *Phys. Rev. D*, **56**, 23-26, 1997.
- Fukuda, Y., Hayakawa, T., Inoue, K., Ishihara, K., Ishino, H., Joukou, S., and 45 co-authors of the Kamioka Collaboration: Solar Neutrino Data Covering Solar Cycle 22, *Phys. Rev. Lett.*, **77**, 1683-1686, 1996.

Kamiokande Collaboration (Fukuda, Y., Hayakawa, T., Inoue, K., Ishida, K., Ishino, H., Joukou, S., and 39 co-authors): Study of neutron background in the atmospheric neutrino sample in Kamiokande, *Phys. Lett. B*, **388**, 397-401, 1996.

Kasuga, S., Hayakawa, T., Joukou, S., and 21 co-authors of the Long Baseline Neutrino Oscillation Experiment: A study on the e/mu identification capability of a water Cerenkov detector and the atmospheric neutrino problem, *Phys. Lett. B*, **374**, 238-242, 1996.

Fukuda, Y., Hayakawa, T., Inoue, K., Ishida, T., Joukou, S., Kajita, T., Kasuga, S., Koshio, Y., Kumita, T., Matsumoto, K., Nakamura, M. and Nakamura, K.: Atmospheric ν_{μ}/ν_e ratio in the multi-GeV energy range, *Phys. Lett. B*, **335(2)**, 237-245, 1994.

Additionally, **more than 20** International/National conference presentations (both oral and poster contributions) as **the first author** during 2001 – 2005 (PhD study period).

Others (book, essay and on me through public media):

A Pair of Researchers from the Arctic Circle Stay in Japan (in Japanese), *La Toccata in The Physical Society of Japan (JPS)*, 63(7), 568-569 (http://ci.nii.ac.jp/els/110006825823.pdf?id=ART0008763736&type=pdf&lang=en&host=cinii&order_no=&ppv_type=0&lang_sw=&no=1433742088&cp=), July 2005

De siktar mot stjärnorna (They are aiming for the stars) (in Swedish), <http://www.lararnasnyheter.se/origo/2011/02/23/siktar-mot-stjarnorna>, 2011

Aurora experiment exchange between high school pupils in Sweden and Japan (in Japanese), <http://www.yukan-daily.co.jp/news.php?id=35159>, 2012

Updated: 2015-06-07