

## COMMISSION H : Waves in Plasmas (Nov. '2001 - Oct. '2004)

Edited by Toshimi Okada ([okada@pu-toyama.ac.jp](mailto:okada@pu-toyama.ac.jp))  
and Yoshiharu Omura ([omura@rsh.kyoto-u.ac.jp](mailto:omura@rsh.kyoto-u.ac.jp))

### References

- Akimoto, Y., Y. Goto, Y. Kasahara, T. Sato [2003], "Automatic classification of electromagnetic waves from database obtained by the Akebono satellite (in Japanese)" *Trans. IEICE, J86-D2(5)*, pp.598-607.
- Anderson, R. R., H. Matsumoto, K. Hashimoto, H. Kojima, Y. Kasaba, M. L. Kaiser, J-L. Bougeret, J-L. Steinberg, and G. Rostoker [2004], "Geotail, Polar, and wind observations of auroral kilometric radiation", *Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series*, vol.16, pp.205-219.
- Ando, Y., M. Hayakawa, and O. A. Molchanov [2002], "Theoretical analysis on the penetration of power line harmonic radiation into the ionosphere", *Radio Sci.*, vol.37, No.6, 1093.
- Ando, A. and M. Hayakawa [2004], " 2D finite difference analyses of Schumann resonance and identification of lightning distribution", *IEEJ Trans. Fundamentals and Materials*, vol.124, No.12, pp. 1225-1231.
- Araki, T., T. Takeuchi and Y. Araki [2004], "Rise time of geomagnetic sudden commencements - Statistical analysis of ground geomagnetic data", *EARTH PLANETS AND SPACE* 56 (2): 289-293 2004.
- Deng, X. H., H. Matsumoto, H. Kojima, T. Murata, R. R. Anderson, W. Baumjohann, and R. Nakamura [2004], "Geotail encounter with reconnection diffusion region in the Earth's magnetotail: Evidence of multiple X lines collisionless reconnection?", *J. Geophys. Res.*, vol.109, pp.A05206-1-A05206-9.
- Deng, X. H., H. Matsumoto, H. Kojima, T. Murata, R. R. Anderson, W. Baumjohann, and R. Nakamura[2004], "Geotail encounter with reconnection diffusion region in the Earth's magnetotail: Evidence of multiple X lines collisionless reconnection?", *J. Geophys. Res.*, vol.109, pp.A05206-1-A05206-9.
- Fujimoto, K., and S. Machida [2003], "An electron heating mechanism in the outflow region from the X-type neutral line", *J. Geophys Res.*, vol.108, No. 1349, pp.A9.....
- Fujita, F., T. Mizuta, M. Itonaga, A. Yoshikawa, H. Nakata, Propagation property of transient MHD impulses in the magnetosphere/ionosphere system: The 2D model of the Pi2 pulsation, *Geophys. Res. Lett.*, pp.....
- Fujita, S., H. Nakata, M. Itonaga, A. Yoshikawa, T. Mizuta, A numerical simulation of the Pi2

- pulsations associated with the substorm current wedge, 2002.
- Fujita, S., and M. Itonaga, A plasmaspheric cavity resonance in a longitudinally non-uniform plasmasphere, *Earth Planets Space*, 55, 219-222, 2003. *Res. Lett.*, vol.30, 1326, pp.....
- Futaana, Y., S. Machida, Y. Saito, A. Matsuoka, and H. Hayakawa [2003], "Moon-related nonthermal ions observed by Nozomi: Species, sources, and generation mechanisms", *J. Geophys. Res.*, vol.108, No.1025, pp.....
- Gaelzer, R., P. H. Yoon, T. Umeda, Y. Omura, and H. Matsumoto [2003], "Harmonic Langmuir waves: II. Turbulence spectrum", *Physics of Plasmas*, vol.10, pp.373-381.
- Green, J. L., S. Boardsen, S. F. Fung, H. Matsumoto, K. Hashimoto, R. R. Anderson, B. R. Sandel, and B. W. Reinisch [2004], "Association of kilometric continuum radiation with plasmaspheric structures", *J. Geophys. Res.*, vol.109, pp.A03203-1-A03203-7.
- Hada T., M. Oonishi, B. Lembege, and P. Savoini [2003], "Shock front nonstationarity of supercritical perpendicular shocks", *J. Geophys. Res.*, vol.108, (A6) pp.....
- Han, D., T. Iyemori, Y. Gao, Y. Sano, F. Yang, W. Li, M. Nose [2003], "Local time dependence of the frequency of Pi2 waves simultaneously observed at 5 low-latitude stations", *Earth Planets Space*, 55, pp.601-612.
- Han, D.-S., T. Iyemori, M. Nose, H. McCreadie, Y. Gao, F. Yang, S. Yamashita, P. Stauning [2004], "A comparative analysis of low-latitude Pi2 pulsations observed by Orsted and ground stations", *J. Geophys. Res.*, pp.....
- Hashimoto, K., H. Iwai, Y. Ueda, H. Kojima, and H. Matsumoto [2003], "Software wave receiver for the SS-520-2 rocket experiment", *IEEE Trans. Geosci. Remote Sensing*, Vol. 41, No. 11, pp.2638-2647..
- Hayakawa, M. and A. P. Nickolaenko [2001], "Lightning effects in mesosphere and associated ELF radio signals", *Proc. Indian Nat'l Science Academy*, 67, A, No.4 & 5, pp.509-529.
- Hayakawa, M. and T. Otsuyama [2002], "FDTD analysis of ELF wave propagation in inhomogeneous subionospheric waveguide models", *Appl. Computational Electromagnetics Soc. J.*, vol.17, No.3, pp.239-244.
- Hayakawa, M. and K. Ohta [2003], "The importance of direction finding technique in general VLF studies, in "Very Low Frequency (VLF) Phenomena" Ed. by A.R.W. Hughes, C. Ferencz and A.K. Gwal, pp.22-35, Narosa Pub. House, New Delhi.
- Hayakawa, M., O. A. Molchanov, A. Y. Schekotov, and E. Fedorov [2004a], "Observation of ionospheric Alfvén resonance at a middle latitude station", *Adv. Polar Upper Atmos. Res.*, No.18, pp.65-76.
- Hayakawa, M., T. Nakamura, Y. Hobara and E. Williams [2004b], "Observation of sprites over the Sea of Japan and conditions for lightning-induced sprites in winter", *J. Geophys. Res.*, vol. 109, A01312, pp.....

- Hayakawa, H., Y. Kasaba, H. Yamakawa, H. Ogawa, and T. Mukai [2004], "The BepiColombo/MMO model payload and operation plan", *Adv. in Space Research*, 33, 12, 2142-2146.
- Higashi, R., T. Imachi, S. Yagitani, and I. Nagano [2004], "Estimation of impedance of wire antennas onboard the Akebono satellite", *Proceedings of 2004 International Symposium on Antennas and Propagation (ISAP 2004)*, Vol.1, pp.269-272, Sendai (Japan).
- Higuchi, T., S. I. Ohtani, T. Uozumi, and K. Yumoto [2002], "Pi2 onset time determination with information criterion", *J. Geophys. Res.*, 107 (A7): . No. 1107 , pp.....
- Hikishima, M., S. Yagitani, I. Nagano, Y. Omura, and H. Matsumoto [2004], "Computer experiment of cyclotron interaction for chorus generation" *2004 Asia-Pacific Radio Science Conference (AP-RASC 2004)*, pp.563-566, Qingdao (China).
- Hobara, Y., N. Iwasaki, T. Hayashida, M. Hayakawa, K. Ohta, and H. Fukunishi [2001], "Interrelation between ELF transients and ionospheric disturbances in association with sprites and elves", *Geophys. Res. Lett.*, vol.28, No.5, pp.935-938.
- Hobara, Y., M. Hayakawa, K. Ohta and H. Fukunishi [2003], "Lightning discharges in association with mesospheric optical phenomena in Japan and their effect on the lower ionosphere", *Adv. Polar Upper Atmos. Res.*, No.17, pp.30-47.
- Hosotani, A., T. Ono, A. Kumamoto, H. Oya [2001], "Propagation modes and source locations of the auroral kilometric radiation (AKR) identified by using the wave distribution function method", *Advances in Polar Upper Atmosphere Research*, 15, 117-127.
- Hosotani, A., T. Ono, M. Iizima, A. Kumamoto [2003], "Second harmonics of auroral kilometric radiation observed by the Akebono satellite", *Adv. Polar Upper Atmos. Res.*, 17, 146-154.
- Imachi, T., S. Yagitani, I. Nagano, S. Esaki, R. Higashi, M. Tsutsui, and H. Matsumoto [2004], "Characteristics of electric wire antennas onboard scientific spacecraft" *2004 Asia-Pacific Radio Science Conference (AP-RASC 2004)*, pp.558-561, Qingdao (China).
- Imhof, W. L., S. M. Petrinec, R. R. Anderson, M. Walt, J. Mobilia, and H. Matsumoto [2004], "Correlations between low-frequency and high-frequency auroral kilometric radiation plasma wave intensity bursts and X rays in the auroral zone", *J. Geophys. Res.*, vol.109, pp.A09204-1-A09204-12.
- Kasaba, Y., H. Matsumoto, and Y. Omura [2001], "One- and two-dimensional simulations of electron beam instability: Generation of electrostatic and electromagnetic 2fp waves", *J. Geophys. Res.*, 106, 18693-18711.
- Kasaba, Y., H. Matsumoto, Y. Omura, and T. Mukai [2004], "2fp Radio source in Geotail observations and numerical simulations -Microscopic view-", *Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series*, vol.16, pp.247-250.

- Kasahara Y., Niitsu R., and Sato T. [2002], "Computational Analysis of Plasma Waves and Particles in the Auroral Region Observed by Scientific Satellites", *Progress in Discovery Science, LNCS*, Springer, 2281, pp.426-437,.
- Katoh, Y., H. Oya, M. Iizima, and T. Ono [2003], "Numerical study on the spatial extent of interaction region surroundings comet nucleus - Ion pick-up process", *Earth Planets Space*, vol.55, pp.705-711.
- Katoh, Y., T. Ono, and M. Iizima [2005], "Numerical experiment of resonant scattering process of high energetic electrons in the outer radiation belt", *Earth Planets Space*, vol.57, pp.117-124.
- Kawano, H, K. Yumoto, V. A. Pilipenko, Y. M. Tanaka, S. Takasaki, M. Iizima, and M. Seto [2002], "Using two ground stations to identify magnetospheric field line eigenfrequency as a continuous function of ground latitude", *J. Geophys. Res.*, 107 (A8): Art. No. 1202 Aug. 24.
- Kobayashi, T., H. Oya, and T. Ono [2002a], "Ascope analysis of subsurface radar sounding of lunar mare region", *Earth Planets Space*, 54, 973-982,.
- Kobayashi, T., H. Oya, and T. Ono [2002b], B-scan analysis of subsurface radar sounding of lunar highland region, *Earth Planets Space*, 54, 983-991..
- Kosaka, K., T. Iyemori, M. Nose, M. Bitterly, J. Bitterly [2002], "Local time dependence of the dominant frequency of Pi2 pulsations at mid- and low-latitudes", *Earth Planets Space*, 54, 771-781.
- Krasovsky, V. L., H. Matsumoto, and Y. Omura [2002], "Approximate invariant of electron motion in the field of a whistler propagating along the geomagnetic field", *Geophys. Res. Lett.*, vol.29, pp.20-1-20-4
- Krasovsky, V. L., H. Matsumoto, and Y. Omura [2003], "Electrostatic solitary waves as collective charges in a magnetospheric plasma: Physical structure and properties of Bernstein-Greene-Kruskal (BGK) solitons", *J. Geophys. Res.*, vol.108, pp.SMP12-1-SMP 12-19.
- Krasovsky, V. L., H. Matsumoto, and Y. Omura [2004], "Effect of trapped-particle deficit and structure of localized electrostatic perturbations of different dimensionality", *J. Geophys. Res.*, vol.109, pp.A04217-1-9.
- Kumamoto, A., T. Ono, and H. Oya [2001], "Seasonal dependence of the vertical distributions of auroral kilometric radiation sources and auroral particle acceleration regions observed by the Akebono satellite", *Adv. Polar Upper Atmos. Res.*, 15, pp.32-42.
- Kumamoto, A., T. Ono, M. Iizima, H. Oya [2003a], "Control factor of solar cycle variation of auroral kilometric radiation", *Adv. Polar Upper Atmos. Res.*, 17, pp.48-59.
- Kumamoto, A., T. Ono, M. Iizima, and H. Oya [2003b], "Seasonal and solar cycle variations of the vertical distribution of the occurrence probability of auroral kilometric radiation sources and of upflowing ion events", *J. Geophys. Res.*, **108(A1), 1032, pp.....**

- Lembege B., J. Giacalone, M. Scholer, T. Hada, M. Hoshino, V. Krasnoselskikh, H. Kucharek, P. Savoini, and T. Terasawa [2004], "Selected problems in collisionless-shock physics", *Space Sci. Rev.*, vol.110, pp.161-226.
- Matsukiyo S., and T. Hada [2002], "Nonlinear evolution of electromagnetic waves driven by the relativistic ring distribution", *Physics of Plasmas*, vol.9, pp.649-661.
- Matsukiyo S., and T. Hada [2003], "Parametric instabilities of circularly polarized Alfvén waves in a relativistic electron-positron plasma", *Physical Review*, vol.E67, (4): No. 046406, Part 2, pp.\*\*\*\*.
- Matsukiyo, S., R. A. Treumann, and M. Scholer [2004], "Coherent waveforms in the auroral upward current region", *J. Geophys. Res.*, vol.109, A06212.
- Matsuoka, H., A. S. Yukimatu, H. Yamagishi, N. Sato, G. J. Sofko, B. J. Fraser, P. Ponomarenko, R. Liu, and T. Goka [2002], "Coordinated observations of Pc3 pulsations near cusp latitudes", *J. Geophys. Res.*, 107 (A11): No. 1400, pp.....
- Matsumoto, H., X. H. Deng, H. Kojima, and R. R. Anderson [2003], "Observation of electrostatic solitary waves associated with reconnection on the dayside magnetopause boundary", *Geophys. Res. Lett.*, vol.30, pp.59-1-59-4.
- Miyake, T., T. Okada, J. Miyakawa, D. Tomishima, K. Ishisaka, H. Kojima, Y. Ueda, H. Matsumoto [2003], "Analysis of DC electric fields observed by SS-520-2 sounding rocket in the polar region", *IEICE Trans. on Communication B*, vol.J86-B, No.6, pp.236-244. (in Japanese)
- Miyake, T., T. Okada, H. Yamagishi, A. Chino, K. Ishisaka, T. Yamagami [2004], "Development of ELF/VLF band wave receiver onboard Polar Patrol Balloon", *IEICE Trans. on Communication B*, vol.J87-B, No.5, pp.741-745. (in Japanese)
- Molchanov, O. A., M. Hayakawa, and K. Miyaki [2001], "VLF/LF sounding of the lower ionosphere to study the role of atmospheric oscillations in the lithosphere-ionosphere coupling", *Adv. Polar Upper Atmos. Res.*, No.15, pp.146-158.
- Morooka, M., M. Andre, J.-E. Wahlund, S. C. Buchert, A. N. Fazakerley, J. D. Winningham, H. Reme, I. Dandouras, B. Lavraud, A. Balogh, K. Igenbergs [2004], "Cluster observations of ULF waves with pulsating electron beams above the high latitude dusk-side auroral region", *Geophys. Res. Lett.*, pp.....
- Motoba, T., T. Kikuchi, H. Luhr, H. Tachihara, T. I. Kitamura, K. Hayashi, and T. Okuzawa [2002], "Global Pc5 caused by a DP 2-type ionospheric current system", *J. Geophys. Res.*, -Space Physics 107 (A2): No. 1032, pp.....
- Motoba, T., T. Kikuchi, T. Okuzawa, and K. Yumoto [2003], "Dynamical response of the magnetosphere-ionosphere system to a solar wind dynamic pressure oscillation", *J. Geophys. Res.*, 108 (A5): No. 1206, pp.....
- Motoba, T., T. Kikuchi, T. F. Shibata, and K. Yumoto [2004], "HF Doppler oscillations in the

- low-latitude ionosphere coherent with equatorial long-period geomagnetic field oscillations", *J. Geophys. Res., Space Physics* 109 (A6): pp.1-7.
- Murata, K. T., W. Kurth, K. Hoshimoto, and H. Matsumoto [2004a], "Occultations of Auroral Kilometric Radiation in the Vicinity of the Earth", *Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series*, vol.16, pp.220-223.
- Murata, K. T., Nurdiyana B. A. Gahni, K. Hashimoto, H. Matsumoto and T. Ogino [2004b], "Proposal of a Virtual Earth Magnetosphere System", *The IEICE Trans. on Communications (B)*, Vol.J87-B, No.2, pp.309-313.
- Murata, K. T. [2003], "A World-wide Distributed Database System for ISTP Project", *The IEICE Trans. on Communications (B)*, Vol.7, No.J86-B, pp.1331-1343.
- Murata, K. T., M. Okada, F. Abe, T. Araki and H. Matsumoto [2002a], "A Design and Estimation of Distributed Meta-database for Solar-terrestrial Physics Observation Data", *IPJS Trans. on Databases*, Vol.43, No.SIG12 (TOD16), pp.115-130
- Murata, K. T., K. Ueoka, S. Takahashi, M. Okada, Hiroko O. Ueda, Y. Omura and H. Matsumoto [2002b], "A Parallel Computing Method for Plasma Particle Simulation Code", *IPJS Transactions on Mathematical Modeling and Its Applications*, Vol.43, No.SIG7 (TOM6), pp.118-131.
- Murata, K. T., Hiroko O. Ueda, K. Ueoka, H. Usui, M. Okada, Y. Omura and H. Matsumoto [2002c], "An Object-oriented Plasma Particle Simulation Code Developed via Object Modeling Technique", *The IEICE Transactions on Communications (B)*, Vol.J85-B, No.8, pp.1411-1425.
- Murata, K. T. [2002d], "A Problem Solving Environment for Space Plasma Simulations: PocketPOM", *The IEICE Transactions on Communications (B)*, Vol.J85-B, No.4, pp.573-578..
- Murata, K. T., Nurdiyana B. A. Gahni, H. Usui, Hiroko O. Ueda, M. Okada, Y. Omura and H. Matsumoto [2002e], "A Problem Solving Environment for Space Plasma Computer Simulations", *IPJS Trans. on Mathematical Modeling and Its Applications*, Vol.43, No.SIG7(TOM6), pp.105-117.
- Nagano, I., X.-Y. Wu, H. Takano, S. Yagitani, H. Matsumoto, K. Hashimoto, and Y. Kasaba [2003], "Remote sensing the magnetosheath by the spin modulation of terrestrial continuum radiation", *J. Geophys. Res.*, 108, A6, 1224, **SMP 1, 2003**.
- Nakagawa, T., Y. Takahashi, and M. Iizima [2003], "GEOTAIL observation of upstream ULF waves associated with lunar wake", *Earth Planets Space*, vol. 55 (9): 569-580.
- Nakajo, T., T. Ono, M. Iizima, M. Oya, and H. Oya 2001], "Evaluation of the double frequency interferometer method applied for the long baseline observations of the Jovian decametric radiations", *Technology Development Center News*, 19, pp.19-24.
- Nickolaenko, A. P., L. M. Rabinowicz, and M. Hayakawa [2004a], "Time domain presentation for ELF pulses with accelerated convergence", *Geophys. Res. Lett.*, vol.31, L05808,
- Nickolaenko, A. P., L. M. Rabinowicz, and M. Hayakawa [2004b], "Natural ELF pulses in the time

Domain : Series with accelerated convergence”, IEEJ Trans. Fundamentals and Materials, vol.124, No.12, pp.1210-1215.

Nickolaenko, A. P., S. O. Nikolayenko, Yu. Schekotov, and M. Hayakawa [2004c], “Alternative interpretation of ionospheric Alfvén resonance”, J. Atmos. Electr., 24, pp.17-30.

Nishimura, K., H. Matsumoto, and H. Kojima [2002], "Electron acceleration and heating influenced by whistler wave packets at quasi-parallel shock waves", J. Geophys. Res., vol.107, pp.7-1-7-11.

Nishimura, K., H. Matsumoto, H. Kojima, and S. P. Gary [2003], "Particle simulations of re-formation at collisionless perpendicular shocks: Coherent behavior of reflected ions", J. Geophys. Res., vol.108, pp.SSH 3-1-SSH3-5.

Nishimura et al. [2004] ?

Nose, M., K. Takahashi, T. Uozumi, K. Yumoto, Y. Miyoshi, A. Morioka, D. K. Milling, P. R. Sutcliffe, H. Matsumoto, T. Goka, H. Nakata [2003], “Multipoint observations of a Pi2 pulsation on morningside: The 20 September 1995 event”, J. Geophys. Res., pp.....

Nose, M., K. Takahashi, T. Uozumi, K. Yumoto, Y. Miyoshi, A. Morioka, D. K. Milling, P. R. Sutcliffe, H. Matsumoto, T. Goka, and H. Nakata [2003], "Multipoint observations of a Pi2 pulsation on morningside: The 20 September 1995 event", J. Geophys. Res., 108 (A5): No. 1219, pp.....

Okada, T., S. Yagitani, I. Nagano, T. Imachi, M. Mukaino, Y. Kasaba, and H. Matsumoto [2001], “Propagation characteristics of ELF/VLF electromagnetic waves in the Martian ionosphere and the possibility for detection of Martian atmospherics by NOZOMI observations”, Trans. IEICE, E84-B, 3. 653-9.

Omura, Y., W. J. Heikkila, T. Umeda, K. Nimomiya, and H. Matsumoto [2003], "Particle simulation of plasma response to an applied electric field parallel to magnetic field lines", J. Geophys. Res., pp.....

Otsuyama, T. and M. Hayakawa [2002], “FDTD simulation and experimental result on VLF scattering by ionospheric perturbations in Earth-ionosphere waveguide”, Trans. IEE of Japan, vol.122-A, No.1, pp.59-64.

Otsuka, F., and T. Hada [2003], “Cross field diffusion of cosmic rays in a two-dimensional magnetic field turbulence”, Space Sci. Rev., vol.107, pp.499-502.

Otsuyama, T., T. Kariya and M. Hayakawa [2003a], “VLF signatures of ionospheric perturbation in the Hokuriku area of Japan”, Adv. Polar Upper Atmos. Res., No.17, pp.109-119.

Otsuyama, T., D. Sakuma and M. Hayakawa [2003b], “ FDTD analysis of ELF wave propagation and Schumann resonance for a subionospheric waveguide model”, Radio Sci., vol.38, No.6, 1103,pp.....

Otsuyama, T. and M. Hayakawa [2004], “FDTD analysis of ELF wave propagation for realistic

subionospheric waveguide”, IEEJ Trans. Fundamentals and Materials, vol.124, No.12, p.1203-1209.

Otsuyama, T., J. Manaba, M. Hayakawa, and M. Nishimura [2004a], “Characteristics of subionospheric VLF perturbation associated with winter lightning around Japan”, Geophys. Res. Lett., vol. 31, L04117, pp.....

Otsuyama, T., J. Manabe and M. Hayakawa [2004b], “Characteristics of subionospheric VLF perturbations associated with winter lightning around Japan”, Adv. Polar Upper Atmos. Res., No. 18, pp.77-86.

Otsuyama, T., J. Manaba, M. Hayakawa, and M. Nishimura [2004a], “Characteristics of subionospheric VLF perturbation associated with winter lightning around Japan”, Geophys. Res. Lett., vol. 31, pp.....

Oya, M., T. Ono, M. Iizima, and H. Oya [2001a], “Location of the acceleration region of the bunched electrons inferred from the interaction event of S-bursts with L-bursts and N-bursts”, Planetary Radio Emission 5 edited by H.O. Ruckers, M.L. Kaiser and Y. Leblanc, Verlag der Osterreichischen Akademie der Wissenschaften, Wien, Austria, pp.105-112.

Oya, M. T. Nakajo, S. Konno, T. Ono, M. Iizima, and H. Oya [2001b], Development of an array antenna system and a multi-frequency interferometer network for the Jovian decametric radiation, Planetary Radio Emission 5 edited by H.O. Ruckers, M.L. Kaiser and Y. Leblanc, Verlag der Osterreichischen Akademie der Wissenschaften, Wien, Austria, pp.210-218.

Oya, M., H. Oya, T. Ono, and M. Iizima [2002], “Analysis of Jovian decametric radiation S-bursts interacting with N-bursts”, Earth, Moon and Planets, 88, pp.187-209.

Oya and Iizima [2003] ?

Saka, O., H. Akaki, and D. N. Baker [2002], "A satellite magnetometer observation of dusk-to-dawn current in the midnight magnetosphere at low-latitude Pi2 onset", Earth Planets Space 54 (12): E1-E4.

Saka, O., H. Akaki, and D. N. Baker [2004], "A Pi2-associated dusk-to-dawn currents in the midnight sector as observed at L-6.6 during multiple Pi2 onsets", Earth Planets Space 56 (7): pp.663-668.

Sakurai, T., Y. Tonegawa, and Y. Shinkai [2001], “Poynting vectors of Pc 5 pulsations observed by the GEOTAIL satellite in the dayside outer magnetosphere”, Earth Planets Space, 53, pp.843-849, 2001.

Shin, K., H. Kojima, H. Mtsunoto, and T. Mukai [2004], "Electrostatic Quasi-monochromatic Waves Downstream of the Bow Shock: GEOTAIL Observations", Frontiers of Magnetospheric Plasma Physics, COSPAR Colloquia Series, vol. 16, pp.293-296.



- Shinbori, A., T. Ono, and H. Oya [2002], "SC triggered plasma waves observed by the Akebono satellite in the polar regions and the Plasmasphere", *Adv. Polar Upper Atmos. Res.*, No.16, pp.126-135.
- Shinbori, A., T. Ono, M. Iizima, A. Kumamoto, H. Oya [2003a], "SC Related Kilometric and Hectometric Radiations Observed by the Akebono Satellite in the Polar Regions", *Adv. Polar Upper Atmos. Res.*, 17, 60-76.
- Shinbori, A., T. Ono, M. Iizima, A. Kumamoto and H. Oya [2003b], "SC Related Plasma Waves Observed by the Akebono Satellite in the Polar Region and inside the Plasmasphere Region", *J. Geophys. Res.*, vol.108, No. A12, 1457, pp.....
- Shinbori, A., T. Ono, M., Iizima and A. Kumamoto [2004], "SC related electric and magnetic field phenomena observed by the Akebono satellite inside the plasmasphere", *Earth Planets Space*, 56, pp.269–282.
- Shiokawa, K., K. Yumoto, and J. V. Olson [2002], "Multiple auroral brightenings and associated Pi 2 pulsations", *Geophys Res. Lett.*, 29 (11): No. 1537 , pp.....
- Shiokawa, K., K. Yumoto, J. V. Olson [2002], "Multiple auroral brightenings and associated Pi 2 pulsations", *Geophys. Res. Lett.*, pp.....
- Shklyar, D. R. and H. Matsumoto [2002], "Dynamics of a wave-pulse penetration into evanescent region", *Physical Review E*, vol.66-046612, pp.1-11.
- Singh, B. and M. Hayakawa [2001], "Propagation modes of low- and very-low-latitude whistlers", *J. Atmos. Solar-terr. Phys.*, vol.63, pp.1133-1147.
- Singh, B. and M. Hayakawa [2003], "Propagation modes of low and very low latitude whistlers, "Very Low Frequency (VLF) Phenomena" Ed. by A.R.W. Hughes, C. Ferencz and A.K. Gwal, pp.174-199, Narosa Pub. House, New Delhi.
- Singh, B., M. Hayakawa, P. K. Mishra, R. P. Singh and D. R. Laskshmi [2003], "VLF electromagnetic noise bursts observed in a borehole and their relation with low-latitude hiss", *J. Atmos. Solar-terr. Phys.*, vol.65, pp.269-276.
- Soloviev, O. V. and M. Hayakawa [2002], "Three-dimensional subionospheric VLF field diffraction by a truncated highly conducting cylinder and its application to the Trimpfi effect problem", *Radio Sci.*, Vol. 37, No. 5, 1079, pp.....
- Soloviev, O. V. and M. Hayakawa [2004], "3D modeling method of VLF subionospheric radio wave propagation allowing for a localized ionospheric perturbation" *IEEE Trans. Fundamentals and Materials*, vol. 124, No. 12, pp.1216-1224.
- Soloviev, O. V. and M. Hayakawa [2002], "Three-dimensional subionospheric VLF field diffraction by a truncated highly conducting cylinder and its application to the Trimpfi effect problem", *Radio Sci.*, Vol. 37, No. 5, 1079, pp.....
- Soloviev, O. V. and M. Hayakawa [2004], "3D modeling method of VLF subionospheric radio wave

- propagation allowing for a localized ionospheric perturbation”, IEEJ Trans. Fundamentals and Materials, vol. 124, No. 12, pp.1216-1224.
- Sugiyama, T., N. Terada, Ken T. Murata, Y. Omura, H. Usui and H. Matsumoto [2004], “Vectorized Particle Simulation Using "LISTVEC" Compile-directive on SX Super-computer”, IPSJ Trans. on Advanced Computing Systems, Vol.45, No.SIG6(ACS6), pp.171-175.
- Takano, H., I. Nagano, S. Yagitani, M. Fukuoka, and H. Matsumoto [2001], “Propagation Characteristics of Lobe Trapped Continuum Radiation in the Distant Magnetotail”, Trans. IEICE, vol.J84-B, no.12, pp.2358-2366. (in Japanese)
- Takano, H., I. Nagano, S. Yagitani, and H. Matsumoto [2004], “Lobe trapped continuum radiation generated in the distant magnetotail” Frontiers in Magnetospheric Plasma Physics (COSPAR Colloquia Series, Vol.16), M. Hoshino, Y. Omura, and L. J. Lanzerotti (eds.), pp.224-227, Elsevier
- Takata Y., Yoshiya KASAHARA, Shouhei TANAKA, Makoto OBAYASHI [2004], “Construction of an Enormous Science Database and Development of an Efficient Data Retrieval and Distribution System (in Japanese)”, *J. Acad. Computing and Networking*, Vol.8, pp.33-43.
- Takeuchi, T, T. Araki, A. Viljanen, and J. Watermann [2002a], "Geomagnetic negative sudden impulses: Interplanetary causes and polarization distribution", *J. Geophys. Res.*, **107 (A7): Art. No. 1096**, pp.....
- Takeuchi T, C. T. Russell, and T. Araki [2002b], "Effect of the orientation of interplanetary shock on the geomagnetic sudden commencement", *J. Geophys. Res.*, **107 (A12): Art. No. 1423**, pp.....
- Tanaka, Y. M., K. Yumoto, A. Yoshikawa, M. Shinohara, H. Kawano, and T. I. Kitamura [2004], "Longitudinal structure of Pc3 pulsations on the ground near the magnetic equator", *J. Geophys. Res.*, **-Space Physics 109 (A3): Art. No. A03201**, pp.....
- Terada, N., S. Machida, and H. Shinagawa [2002], “Global hybrid simulation of the Kelvin–Helmholtz instability at the Venus ionopause”, *J. Geophys. Res.*, vol.107 (A12): Art. No. 1471, pp.....
- Terada N, H. Shinagawa, and S. Machida [2004], “Global hybrid model of the solar wind interaction with the Venus ionosphere: ion escape processes” *Advances in Space Research*, vol.33, pp.161-166.
- Tsurutani, B., G. S. Lakhina, J. S. Pickett, and Y. Kasahara [2003], “ELF/VLF Plasma Waves in the Low Latitude Boundary Layer”, *American Geophysical Union Monogr.*, vol.133, pp.189-203.
- Tsutsui, M., [2002], “Detection of earth-origin electric pulses”, *Geophys. Res. Lett.*, Vol. 29, No.8, pp.35/1-35/4.
- Ueda, Y., H. Kojima, H. Matsumoto, K. Hashimoto, I. Nagano, T. Okada, and T. Mukai [2003], “Lower hybrid waves observed at the dayside polar region: SS-520-2 rocket experiment”, *Radio Sci.*, vol.38, pp.6-1-6
- Uemoto, J., T. Ono, A. Kumamoto, and M. Iizima [2004], “Ionization ledge structures observed in

- the equatorial anomaly region by using PPS system on-board the Ohzora (EXOS-C) satellite”, *Earth Planets Space*, 56, e21-e24.
- Uozumi, T., K. Yumoto, H. Kawano, A. Yoshikawa, S. Ohtani, J. V. Olson, S. I. Akasofu, S. I. Solov'yev, E. F. Vershinin, K. Liou, and C. I. Meng [2004], "Propagation characteristics of Pi 2 magnetic pulsations observed at ground high latitudes", *J. Geophys. Res.*, **109 (A8): No. A08203**, pp.....
- Umeda, T., Y. Omura, H. Matsumoto, and H. Usui [2002], "Formation of electrostatic solitary waves in space plasmas: Particle simulations with open boundary", *J. Geophys. Res.*, vol.107, pp.SMP 19-1-SMP 19-16.
- Umeda, T., Y. Omura, H. Matsumoto, and H. Usui [2002], "Formation of electrostatic solitary waves in space plasmas: Particle simulations with open boundary", *J. Geophys. Res.*, vol.107, 1449, doi:10.1029/2001JA000286.
- Umeda, T., Y. Omura, P. H. Yoon, R. Gaelzer, and H. Matsumoto [2003], "Harmonic Langmuir waves: III. Vlasov simulation", *Physics of Plasmas*, vol.10, pp.382-391.
- Umeda, T., Y. Omura, and H. Matsumoto [2004], "Two-dimensional particle simulation of electromagnetic field signature associated with electrostatic solitary waves", *J. Geophys. Res.*, vol.109, pp.A02207-1-A02207-10.
- Usui, H., H. Matsumoto, R. Gendrin, and T. Nishikawa [2002], "Numerical simulations of a three-wave coupling occurring in the ionospheric plasma", *Nonlinear Processes in Geophysics*, vol.9, pp.1-10.
- Usui, H., H. Matsumoto, F. Yamashita, A. Yamamoto and Y. Omura [2004a], "Antenna analysis in magnetized plasma via particle-in-cell simulation", *Advances Space Res.*, vol.34, pp.2433-2436.
- Usui, H., H. Matsumoto, Y. Yasugi, H. Tashima and Y. Omura [2004b], "PIC simulations of spacecraft charging and the neutralization process by plasma emission", *Adv. Space Research*, vol.34, pp.2437-2440.
- Usui, H., H. Matsumoto, K. Miyata and Y. Omura [2004c], "Computer experiments on electromagnetic environment of plasma sheath at conducting surface", *Adv. Space Research*, vol.34, pp.2441-2444.
- Yamaguchi, R., H. Kawano, S. Ohtani, K. Yumoto, T. Mukai, Y. Saito, and H. Hayakawa [2002], "The timing relationship between bursty bulk flows and Pi2s at the geosynchronous orbit", *Geophys. Res. Letts.*, **29 (6): No. 1092**, pp.....
- Yamakawa, H., H. Ogawa, Y. Kasaba, H. Hayakawa, T. Mukai, and A. Adachi [2002], "ISAS feasibility study on the BepiColombo/MMO spacecraft design", *Acta Astronautica*, 51, 1, pp.397-404.
- Yamakawa, H., H. Ogawa, Y. Kasaba, H. Hayakawa, T. Mukai, and M. Adachi [2004], "Current status of the BepiColombo/MMO spacecraft design" *Adv. Space Res.*, 33, 12, pp.2133-2141.

