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**Institut für Weltraumforschung** der  
Österreichische Akademie der Wissenschaften  
Abteilung für experimentelle Weltraumforschung, Graz

**Persönliches**

Date and Place of Birth: November 4, 1961; Tokyo, Japan

**Ausbildung / Education**

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|-----------|---|
| 1980-1984 | B.Sc. in Geophysics, Faculty of Science, University of Tokyo  |
| 1984-1987 | M.Sc. in Geophysics, Geophysics Research Laboratory, University of Tokyo<br>(Thesis: "Drift of the auroral structures and the magnetospheric electric field")           |
| 1987-1990 | Ph.D. in Geophysics, Geophysics Research Laboratory, University of Tokyo<br>(Thesis: "Aurora dynamics and particle injection associated with magnetospheric substorms") |

**Berufslaufbahn / Professional Career**

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| 1990-1991    | Research Associate, National Institute of Polar Research, Tokyo, Japan                                     |
| 1991-1993    | Research Associate, NASA Goddard Space Flight Center   |
| 1993-1998    | Assistant Professor, tenured, Solar-Terrestrial Environment Laboratory, Nagoya University, Japan           |
| 1998-2001    | Senior Scientist, Max-Planck-Institut für extraterrestrische Physik, Germany.                              |
| 2001-present | Senior Scientist, Institut für Weltraumforschung der Österreichischen Akademie der Wissenschaften, Austria |

**Other professional experience**

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| 1988-1990    | German interpreter for the International Hospitality and Conference Service Association (IHCSA) and SIMUL International Inc. (part time) |
| 1996-1998    | Japanese Representative on Geospace Environment Modeling Steering Committee  |
| 1998-2000    | German Cluster Data Center Scientist   |
| 2000-present | Co-I of Cluster Electron Drift Instrument (EDI)  |
| 2001-2002    | Space weather consortium member (European Science and Technology Week 2002)  |
| 2002-present | Co-I of Double Star magnetic field experiment (FGM)  |
| 2002-present | Co-I of Venus Express magnetic field experiment (FGM)  |

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| 2002-present | Co-I of THEMIS magnetic field experiment              |
| 2003-present | Co-I of Double Star hot ion analyzer instrument (HIA) |
| 2003-present | Co-I of Cluster Fluxgate magnetometer (FGM)           |
| 2003-present | Co-I of Cluster Ion Spectrometry measurement (CIS)    |

Co-Investigator in future missions: Bepi-Colombo (ESA/ISAS).  
 (Co-)Convener/Program Committees member at 7 international meetings.  
 Experience in review panel board of NASA/ESA Research Announcements

### Forschungsinteressen / Research interests

- Auroral Dynamics (using ground-based all-sky camera and magnetometer data)
- Magnetotail Structure (using IMP 6, 7, 8, Geotail plasma and field data)
- Storm-time Relativistic Electron Dynamics (using SAMPEX electron data)
- Magnetospheric and Auroral Substorms (using Geotail, Equator-S, and CLUSTER plasma and field data and POLAR image data)

### Auszeichnungen / Awards

- 1998 NASA Group Achievement Award, Geotail Analysis Team, Global Geospace Science Investigation Team
- 2000 Editor's Citation for Excellence in Refereeing, Geophysical Research Letters, American Geophysical Union (AGU)
- 2004 NASA Group Achievement Award, Cluster Science Team
- 2005 Tanakadate Award from the Society of Geomagnetism and Earth, Planetary and Space Sciences

### Ausgewählte Publikationen / Selected Publications (from 2000 onwards)

#### Journals and Books (First-Author)

- Nakamura, R., S. Kokubun, Tail configuration during storms, *Adv. Space. Res.*, 25(7/8), 1631, 2000 [1].
- Nakamura, R., M. Isowa, Y. Kamide, D. N. Baker, J. B. Blake, M. Looper, SAMPEX observations of precipitation bursts in the outer radiation belt, *J. Geophys. Res.* 105, 15875, 2000 [7].
- Nakamura, R., W. Baumjohann, M. Brittnacher, V. A. Sergeev, M. Kubyshkina, T. Mukai, K. Liou, Flow bursts and auroral activations: Onset timing and foot point location, *J. Geophys. Res.*, 106, 10777, 2001 [25].
- Nakamura, R., W. Baumjohann, R. Schoedel, V. A. Sergeev, M. Kubyshkina, M. Brittnacher, T. Mukai, K. Liou, Earthward flow bursts, auroral streamers and small expansions, *J. Geophys. Res.*, 106, 10791, 2001 [20].
- Nakamura, R., W. Baumjohann, B. Klecker, Y. Bogdanova, A. Balogh, H. Reme, J.-M. Bosqued, I. Dandouras, J.-A. Sauvaud, K.-H. Glassmeier, L. Kistler, C. Mouikis, T. L. Zhang, H. Eichelberger, A. Runov, Motion of the dipolarization front during a flow burst event observed by Cluster, *Geophys. Res. Lett.*, 29, 1942, doi:10.1029/2002GL015763, 2002 [6].
- Nakamura, R., J. B. Blake, S. R. Elkington, D. N. Baker, W. Baumjohann, Relationship between ULF waves and radiation belt electrons during the March 10, 1998 storm, *Adv. Space Res.*, 30(10), 2163, 2002 [2].
- Nakamura, R., W. Baumjohann, A. Runov, M. Volwerk, T. L. Zhang, B. Klecker, Y. Bogdanova, A. Roux, A. Balogh, H. Reme, J. A. Sauvaud, H. U. Frey, Fast flow during current sheet thinning, *Geophys. Res. Lett.*, 29, 2140, doi:10.1029/2002GL016200, 2002 [18].

- Nakamura, R., W. Baumjohann, T. Nagai, M. Fujimoto, T. Mukai, B. Klecker, R. Treumann, A. Balogh, H. Reme, J. A. Sauvaud, L. Kistler, C. Mouikis, C. J. Owen, A. N. Fazakerly, J. P. Dewhurst, Y. Bogdanova, Flow shear near the boundary of the plasma sheet observed by Cluster and Geotail, *J. Geophys. Res.*, 109, A05204, doi:10.1029/2003JA010174, 2004 [2].
- Nakamura, R., W. Baumjohann, C. Mouikis, L. M. Kistler, A. Runov, M. Volwerk, Y. Asano, Z. Voeroes, T. L. Zhang, B. Klecker, H. Reme, and A. Balogh, Spatial scale of high-speed flows in the plasma sheet observed by Cluster, *Geophys. Res. Lett.*, 31, L09804, doi:10.1029/2004GL019558, 2004.
- Nakamura, R., O. Amm, H. Laakso, N. Draper, M. Lester, A., Grocott, B. Klecker, I. W. McCrea, A. Balogh, H. Reme, M. Andre, Localized fast flow disturbance observed in the plasma sheet and in the ionosphere, *Ann. Geophys.*, 23, 553-566, 2005[1].

### Journals and Books (Co-Author)

- Kawano, H., R. Nakamura, S. Kokubun, T. Mukai, T. Yamamoto, K. Yumoto, J. A. Slavin, Substorm-associated shrinkage of the mid-tail magnetosphere: IACG campaign #2, *Adv. Space Res.*, 25(7/8), 1689, 2000.
- Sergeev, V. A., J.-A. Sauvaud, D. Popescu, R. A. Kovrazhkin, K. Liou, P. T. Newell, M. Brittnacher, G. Parks, R. Nakamura, T. Mukai, G. D. Reeves, Multiple-spacecraft observation of a narrow transient plasma jet in the Earth's plasma sheet, *Geophys. Res. Lett.*, 27, 851, 2000 [29]
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- Petrukovich, A. A., W. Baumjohann, R. Nakamura, T. Mukai, O. A. Troshichev, Small substorms: Solar wind input and magnetotail dynamics, *J. Geophys. Res.*, 105, 21,109, 2000 [8].
- Vaivads, A., G. Haerendel, W. Baumjohann, R. Nakamura, H. Kucharek, E. Georgescu, B. Klecker, L. M. Kistler, Compressional Pc5 pulsations as sloshing in the plasma sheet, *J. Geophys. Res.*, 105, 23,287, 2000 [2].
- Schödel, R., W. Baumjohann, R. Nakamura, V. A. Sergeev, T. Mukai, Rapid flux transport in the central plasma sheet, *J. Geophys. Res.*, 106, 301, 2001 [23].
- Schödel, R., W. Baumjohann, R. Nakamura, T. Mukai, Rapid flux transport and plasma sheet reconfiguration, *J. Geophys. Res.*, 106, 8381, 2001 [5].
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- Vaivads, A., G. Haerendel, W. Baumjohann, R. Nakamura, H. Kucharek, B. Klecker, M. R. Lessard, L. M. Kistler, T. Mukai, A. Nishida, Compressional Pc5 type pulsations in the morningside plasma sheet, *Ann. Geophys.*, 19, 311, 2001 [2].
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- Petrukovich, A. A., W. Baumjohann, R. Nakamura, R. Schödel, T. Mukai, Are earthward bursty bulk flows convective or field-aligned? *J. Geophys. Res.*, 106, 21,211, 2001 [3].
- Vaivads, A., W. Baumjohann, E. Georgescu, G. Haerendel, R. Nakamura, M. R. Lessard, P. Eglitis, L. M. Kistler, R. E. Ergun, Correlation studies of compressional Pc5 pulsations in space and Ps6 pulsations on the ground, *J. Geophys. Res.*, 106, 29797, 2001 [2].
- Baumjohann, W., R. Schödel, R. Nakamura, Burst of fast magnetotail flux transport, *Adv. Space Res.*, 30, 2241, 2002 [1].
- Schödel, R., K. Dierschke, W. Baumjohann, R. Nakamura, T. Mukai, The storm-time plasma sheet. *Ann. Geophys.*, 20, 1737, 2002.
- Zhang, T. L., W. Baumjohann, R. Nakamura, A. Balogh, K.-H. Glassmeier, A wavy twisted neutral sheet observed by CLUSTER, *Geophys. Res. Lett.*, 29(19), 1899, doi:10.1029/2002GL015544, 2002[4].
- Runov, A., R. Nakamura, W. Baumjohann, T. L. Zhang, M. Volwerk, and H.-U. Eichelberger, Cluster observation of a bifurcated current sheet, *Geophys. Res. Lett.*, 30 (2), 1036, doi:10.1029/2002GL016136, 2003 [22].
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- Noda, H., W. Baumjohann, R. Nakamura, K. Torkar, G. Paschmann, H. Vaith, P. Puhl-Quinn, M. Förster, R. Torbert, and J. M. Quinn, Tail lobe convection observed by Cluster/EDI, *J. Geophys. Res.*, 108, 1288, doi:10.1029/2002JA009669, 2003 [2].
- Petrukovich, A. A., W. Baumjohann, R. Nakamura, A. Balogh, T. Mukai, and K.-H. Glassmeier, H. Reme, B. Klecker, Plasma sheet structure during strongly northward IMF, *J. Geophys. Res.*, 108, 1258, doi:10.1029/2002JA009738, 2003.
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