Program of the Eleventh Symposium on Coordinated Observations of the Ionosphere and the Magnetosphere in the Polar Regions held at the National Institute of Polar Research, Tokyo, January 25–27, 1988

I. MAP Observation in Antarctica

1. Comment on the lidar observations of the mesospheric sodium layer at Syowa Station. M. UCHIUMI and M. FUJIWARA.
2. Antarctic stratosphere heating rate calculation using SAGE II (1985) data, related to Antarctic ozone hole. H. AKIYOSHI, M. FUJIWARA, M. URYU and M. P. MCCORMICK.
3. Infrared spectrometer observation on Antarctic MAP, related to Antarctic ozone hole. Y. MAKINO, K. SHIOBARA, M. HUKABORI, H. MURAMATSU, T. OGAWA, M. TANAKA and S. KAWAGUTI.
4. Ozone Hole: Simulations of excimer ozone lidar observations. M. YASUI, M. FUJIWARA, T. SHIBATA and M. MAEDA.
5. An application of a tunable diode laser heterodyne spectrometer to the Antarctic ozone hole study. M. TAGUSHI, S. OKANO and H. FUKUNISHI.

II. Disturbance in the Magnetosphere and Ionosphere

6. Interplanetary magnetic clouds and solar dark filaments. K. MARUBASHI.
7. Substorm signature in cometary magnetosphere. T. SAITO, K. YUMOTO and T. OKI.
8. An MHD model of polar cap structure. T. OGINO, R. J. WALKER and M. ASHOUR-ABDALLA.
9. Laboratory evaluation of the IMF control of the magnetosphere. S. MINAMI.
10. Development of field-aligned currents preceding to the anset of dipolarization. K. IIJIMA, T. A. POTEMRA and L. J. ZONETTI.
11. Characteristics of CNA accompanying geomagnetic sudden commencements. H. NAGANO, T. ARAKI, T. IYEMORI, N. SATO and M. AYUKAWA.
12. Cosmic noise absorption observed with scanning beam riometer at a time of SSC-triggered substorm. T. KIKUCHI and H. YAMAGISHI.
13. E region plasma waves observed by 50 MHz radar. T. TANAKA, T. OGAWA and K. IGARASHI.
14. Simultaneous observations of radio and optical auroras over Mizuho Station. T. OGAWA, T. TANAKA and H. YAMAGISHI.
15. Electron density and temperature irregularities observed by OHZORA satellite in the high-latitude topside ionosphere. S. WATANABE, K. OYAMA, T. ABE, H. OYA, T. TAKAHASHI and T. ITO.
16. Characteristic times of thermospheric response to ionospheric/magnetospheric disturbances. S. MAEDA.

III. Geomagnetically Conjugate Observation

17. Statistical study on the conjugacy of geomagnetic disturbances in the auroral region. S. TSUNOMURA.
18. K_p-dependence of the conjugate point of Syowa Station. H. NAKAJIMA, H. FUKUNISHI and T. ONO.
19. Ground-based network observation of ELF chorus associated with X-ray micro-burst observed by AZCO-EXW1 arctic balloon experiment. H. SUZUKI, H. YAMAGISHI, N. SATO, S. ULLALAND, Y. HIRASHIMA and T. HIRASAWA.
20. Study of ULF waves simultaneously observed at four stations in Iceland. Y. TONEGAWA, T. ONO, H. YAMAGISHI and M. EJIRI.

IV. Aurora and Related Phenomena

21. Quiet time polar auroral distributions. C.-I. MENG and K. MAKITA.
22. Occurrence condition of the bright transport arc. K. MAKITA and C.-I. MENG.
23. New type of trans polar cap arc detected by ESP onboard the EXOS-C satellite. T. OBARA, A. NISHIDA, M. KITAYAMA, T. MUKAI and N. KAYA.

24. Occurrence phase of auroral activity and view longitude of the heliospheric neutral sheet. T. SAITO, T. OKI, S.-I. AKASOFU and C. OLMSTED.
25. Simultaneous multi-satellite observation of the auroral oval. C.-I. MENG, F. BYTHROW and A. GREENWALD.
26. Drifts of auroral structures and magnetospheric electric fields. R. NAKAMURA.
27. Temporal variation of the auroral conjugacy in Syowa-Iceland pair. T. HIRASAWA and T. ONO.
28. Relationship between chorus emission and aurora. K. HAYASHI.
29. Relationship between aurora and auroral absorption observed by scanning-beam riometer at Syowa Station, Antarctica. H. YAMAGISHI, T. KIKUCHI, S. IKEDA and T. YOSHINO.

V. Future Program for Observation in the Polar Regions

30. HF radar experiment for the study of auroral and polar cap ionospheres—A proposal. T. OGAWA, K. IGARASHI, T. HIRASAWA, M. EJIRI and R. FUJII.
31. Proposal of auroral X-ray observations in Antarctica. Y. HIWASIMA, K. OKUDAIRA, H. SUZUKI, T. YAMAGAMI and M. KODAMA.
32. Development of a Fabry-perot Doppler imaging system: The design and preliminary evaluation of a proto-model. S. OKANO, H. NAKAJIMA, H. FUKUNISHI, T. ONO and T. HIRASAWA.
33. Auroral dynamics (Review). T. OGUTI.
34. Aurora observed by the rocket experiments (Review). M. EJIRI.
35. Remote sensing of aurora and ultraviolet emissions (Review). C.-I. MENG.
36. Overview of future program for auroral study. H. OYA.
37. STEP Program. H. FUKUNISHI.
38. STEP Program in Antarctica. M. EJIRI.
39. EXOS-D Program. K. TURUTA.

VI. ULF Wave Phenomena

40. Ion-cyclotron waves associated with magnetic storms in the high latitudes. Y. KATO and Y. TONEGAWA.
41. Characteristics of ssc associated magnetic pulsations (Psc). M. KUWASHIMA.
42. Impulsive magnetic variations near the polar cusp region. S. KOKUBUN, T. YAMAMOTO, H. KAWANO, K. TAKAHASHI and L. J. ZANETTI.
43. Particle precipitation associated with IPDP events. H. FUKUNISHI and K. HAYASHI.
44. Relations of Pi 1–2 magnetic pulsations at $L=1.3$–2.1. K. YUMOTO, K. TAKAHASHI, T. SAITO, F. W. MENK and B. J. FRASER.
45. Pi 2 pulsations observed at AMPTE/CCE and on the ground, Syowa-Iceland conjugate stations. S. KOKUBUN, K. TAKAHASHI, T. SAKURAI, Y. TONEGAWA and H. YAMAGISHI.

VII. ELF-HF Wave Phenomena

46. The mode identification and directions of auroral waves. K. HASHIMOTO and W. CALVERT.
47. A comparison between wave-hope method and wave-guide made method for VLF waves. H. TAKAHATA, I. KIMURA and I. NAGANO.
48. A simulation of the auroral ionosphere. Y. TANAKA and M. NISHINO.
49. Frequency drift of substorm-associated mid-latitude VLF emissions in the pre-midnight. M. HAYAKAWA, Y. TANAKA and T. OKADA.
50. Waves associated with ion cyclotron mode at polar region and near plasmapause. S. WATANABE, T. ONDOH, A. SUZUKI and Y. NAKAMURA.
51. Statistical characteristics of VLF/ELF hiss in the magnetosphere. S. TSUJI, S. SHIMAKURA and M. HAYAKAWA.
52. Auroral hiss observed on the ground and by the rocket. M. NISHINO and Y. TANAKA.
53. Relations of narrow-band hiss with geomagnetic activity and auroral hiss. T. ONDOH.
54. On the mechanism of chorus emissions triggered by hiss in the magnetosphere. K. HATTORI, S. SIMAKURA and M. HAYAKAWA.
55. Comparison between auroral hiss and plasma wave emissions of electron beam active experiments. Y. OMURA and H. MATSUMOTO.