

References

- Abranin E. P., L. L. Bazelyan, M. V. Bistrov, N. Yu. Goncharov, M. M. Cobrin, and S. D. Snegirev, Quasiperiodic fluctuations of solar radio emission at decameter wavelengths, *Pis'ma Astron. Zh.*, **4**, 559, 1978 (in Russian).
- Abranin E. P., L. L. Bazelyan, V. O. Rapoport, and Ya. G. Tsybko, Variations of type III burst parameters during a decametric solar storm, *Solar Phys.*, **66**, 333, 1980.
- Abranin E. P., and L. L. Bazelyan, The structure of type-II supernova remnant G160.5 + 2.8(HB-9) observed at $\lambda = 12\text{m}$, *Astrophys. Space Science*, **83**, 299, 1982.
- Abranin E. P., L. L. Bazelyan, and Ya. G. Tsybko, Harmonic relation of type IIIb-III solar radio bursts in 6.25, 12.5 and 25 MHz octaves, *Solar Phys.*, **91**, 377, 1984.
- Abranin E. P., and L. L. Bazelyan, Decameter radiation of the quiet sun, Inst. radiofiz. i ehlektron. Akad. Nauk USSR, *Preprint*, **304**, 42pp., 1986 (in Russian).
- Acuña, M. H., and N. F. Ness, Results from the GSFC fluxgate magnetometer on Pioneer 11, in *Jupiter*, ed. by T. Gehrels, University of Arizona Press (Tucson), 830-847, 1976a.
- Acuña, M. H., and N. F. Ness, The main magnetic field of Jupiter, *J. Geophys. Res.*, **81**, 2917-2922, 1976b.
- Acuña, M. H., K. W. Behannon, and J. E. P. Connerney, Jupiter's magnetic field and magnetosphere, in *Physics of the Jovian Magnetosphere*, ed. by A. Dessler, Cambridge University Press, Cambridge, Mass., 1-50, 1983.
- Alexander, J. K., and M. L. Kaiser, Terrestrial kilometric radiation 1: Spatial structure studies. *J. Geophys. Res.*, **81**, 5948, 1976.
- Alexander, J. K., M. D. Desch, M. L. Kaiser, and J. R. Thieman, Latitudinal beaming of Jupiter's low frequency radio emissions, *J. Geophys. Res.*, **84**, 5167-5174, 1979.
- Alexander, J. K., T. D. Carr, J. R. Thieman, J. J. Schauble, and A. C. Riddle, Synoptic observations of Jupiter's radio emissions: Average statistical properties observed by Voyager, *J. Geophys. Res.*, **86**, 8529-8545, 1981.
- Allaart, M. A. F., J. van Nieuwkoop, C. Slottje, and L. H. Sondaar, Atlas of fine structure in solar microwave bursts, *Preprint of the Sterrekundig Instituut Utrecht*, 1990.
- Aschwanden, M. J., Theory of radio pulsations in coronal loops, *Solar Phys.*, **111**, 113, 1987.
- Atreya, S. K., J. H. Waite, Jr., T. M. Donahue, A. F. Nagy, and J. C. McConnell, Theory, measurements, and models of the upper atmosphere and ionosphere of Saturn, in *Saturn*, edited by T. Gehrels and M. S. Matthews, p. 239, Univ. of Arizona Press, Tucson, 1984.
- Aubier, M.G., F. Genova, A catalogue of the high frequency limit of the Jovian decameter emission observed by Voyager, *Astron. Astrophys. Suppl. Ser.*, **61**, 341, 1985.

- Aubier, M. G., W. Calvert, and F. Genova, Source localization of Jupiter's Io dependent radio emissions, in *Planetary Radio Emission II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 113, Austrian Academy of Sciences Press, Vienna, 1988.
- Bahnsen, A., B. M. Pedersen, M. Jespersen, E. Ungstrup, L. Eliasson, J. S. Murphree, R. D. Elphinstone, L. Blomberg, G. Holmgren, and L. J. Zanetti, Viking observations at the source region of Auroral Kilometric Radiation, *J. Geophys. Res.*, **94**, 6643, 1989.
- Baker, D. N., P. R. Higbie, R. D. Belian, and E. W. Hones, Do Jovian electrons influence the terrestrial outer radiation zone?, *Geophys. Res. Lett.*, **6**, 531, 1979.
- Baker, D. N., J. B. Blake, R. W. Klebesadel, and P. R. Higbie, Highly relativistic electrons in the Earth's outer magnetosphere 1. Lifetimes and temporal history 1979–1984, *J. Geophys. Res.*, **91**, 4265, 1986.
- Bame, S.J., J.R. Asbridge, H.E. Felthausen, J.P. Glore, G. Paschmann, P. Hemmerich, K. Lehmann, and H. Rosenbauer, ISEE–1 and ISEE–2 fast plasma experiment and the ISEE–1 solar wind experiment, *IEEE Trans. Geosci. Electron.*, **GE–16**, 216–220, 1978.
- Barbosa, D. D., Low-level VLF and LF radio emissions observed at Earth and Jupiter, *Rev. Geophys.*, **20**, 316, 1982.
- Barbosa, D. D., Beaming of Uranian kilometric radiation and implications for the planetary magnetic field, *Astrophys. J.*, **315**, L151–L154, 1987.
- Barbosa, D. D., Polar cap emission model of Uranian kilometric radiation, *Astrophys. J.*, **333**, 443–451, 1988.
- Barbosa, D. D., and W. S. Kurth, Beam-generated upper hybrid noise in Jupiter's outer magnetosphere, *J. Geophys. Res.*, **95**, 8177, 1990.
- Barbosa, D. D., W. S. Kurth, I. H. Cairns, D. A. Gurnett, and R. L. Poynter, Electrostatic electron and ion cyclotron harmonic waves in Neptune's magnetosphere, *Geophys. Res. Lett.*, **17**, 1657, 1990a.
- Barbosa, D. D., W. S. Kurth, S. L. Moses, and F. L. Scarf, Z mode radiation in Jupiter's magnetosphere, *J. Geophys. Res.*, **95**, 8187, 1990b.
- Baron, R., R. D. Joseph, T. Owen, J. Tennyson, S. Miller, and G. Ballester, Imaging Jupiter's aurorae from H3+ emissions in the 3–4 micron band, *Nature*, **353**, 539–542, 1991.
- Barrow, C. H., and D. P. Morrow, The polarization of the Jupiter radiation at 18 MHz, *Astrophys. J.*, **152**, 593–608, 1968.
- Barrow, C. H., A. Lecacheux, and Y. Leblanc, Arc structures in the Jovian decameter emission observed from the Earth and from Voyager, *Astron. Astrophys.*, **106**, 94–97, 1982.
- Barrow, C. H., and M. D. Desch, Solar wind control of Jupiter's hectometric radio emission, *Astron. Astrophys.*, **213**, 495–501, 1989.

- Baumback, M. M., D. A. Gurnett, W. Calvert, and S. D. Shawhan, Satellite interferometric measurements of auroral kilometric radiation, *Geophys. Res. Lett.*, **13**, 1105, 1986.
- Baumback, M. M., and W. Calvert, The minimum bandwidth of auroral kilometric radiation, *Geophys. Res. Lett.*, **14**, 119, 1987.
- Bazelyan L. L., A search for local sources of the s-component at decameter wavelengths, *Solar Phys.*, **112**, 107, 1987.
- Bazelyan L. L., S. Ya. Braude, and A. V. Megn, Scattering of the decametric wavelength radiation of the Crab Nebula by the Solar corona, *Astron. Zh.*, **47**, 188, 1970 (in Russian).
- Bazelyan L. L., and V. G. Sinitin, Scattering of radio waves from cosmic sources in the solar corona, *Solar Phys.*, **17**, 129, 1971.
- Bazelyan L. L., N. Yu. Goncharov, V. V. Zaitsev, V. A. Zinichev, V. O. Rapoport, and Ya. G. Tsybko, Frequency and time splitting of decameter solar radio bursts. 11. Chains, *Solar Phys.*, **39**, 223, 1974.
- Bazelyan L. L., N. Yu. Goncharov, V. V. Zaitsev, V. A. Zinichev, V. O. Rapoport, and Ya. G. Tsybko, Collisionless deceleration of fast electron streams in the solar coronal plasma, *Solar Phys.*, **52**, 141, 1977.
- Bazelyan L. L., and V. N. Mel'nik, Post-burst increase of solar brightness temperature at decameter wavelengths, *Kinematika i physika nebesnikh tel'*, **6**, No. 1, 87, 1990 (in Russian).
- Behannon, K. W., M. H. Acuña, L. F. Burlaga, R. P. Lepping, N. F. Ness, and F. M. Neubauer, Magnetic field experiment for Voyagers 1 and 2, *Space Sci. Rev.*, **21**, 235, 1977.
- Belcher, J. W., et al., Plasma observations near Neptune: Initial results from Voyager 2, *Science*, **246**, 1478, 1989.
- Belmont G., and G. Chanteur, Advances in magnetopause Kelvin-Helmholtz instability studies, *Phys. Scripta*, **40**, 124, 1989.
- Benediktov, E. A., G. G. Getmansev, and Y. A. Sazonov, Preliminary results of measurements of the intensity of distributed extra-terrestrial radio frequency emission at 725 and 1525kc (in Russian), *Kosm. Issled.*, **3**, 614, 1965.
- Benediktov, E. A., G. G. Getmansev, N. A. Mityakov, V. O. Papoport, and A. F. Tarozov, Relation between geomagnetic activity and the sporadic radio emission recorded by the Electron-2 satellite (in Russian), *Kosm. Issled.*, **6**, 7, 1968.
- Benson, R. F., Auroral kilometric radiation: Wave modes, harmonics and source region density structures, *J. Geophys. Res.*, **90**, 2753-2784, 1985.
- Benson, R. F., and W. Calvert, ISIS-1 observations at the source of auroral kilometric radiation, *Geophys. Res. Lett.*, **6**, 479, 1979.

- Benson, R. F., W. Calvert and D.M. Klumpar, Simultaneous wave and particle observations in the auroral kilometric radiation source region, *Geophys. Res. Lett.*, **7**, 959–962, 1980.
- Benson, R. F., and S. –I. Akasofu, Auroral kilometric radiation/aurora correlation, *Radio Sci.*, **19**, 527–541, 1984.
- Benson, R. F., and H. K. Wong, Low-altitude ISIS 1 observations of auroral radio emissions and their significance to the cyclotron maser instability, *J. Geophys. Res.*, **92**, 1218–1230, 1987.
- Benson, R. F., M. D. Desch, R. D. Hunsucker, and G. J. Romick, Ground level detection of low and medium frequency auroral radio emissions, *J. Geophys. Res.*, **93**, 277, 1988.
- Benson, R. F., and M. D. Desch, Wideband noise observed at ground level in the auroral region, *Radio Sci.*, **26**, 943, 1991.
- Benson, R. F., and J. Fainberg, Maximum power flux of Auroral Kilometric Radiation, *J. Geophys. Res.*, **96**, 13749, 1991.
- Benz, A. O., E. Fürst, W. Hirth, and M. R. Perrenoud, Solar radio blips and X-ray kernels, *Nature*, **291**, 210, 1981.
- Bierbach, L., Einführung in die konforme Abbildung, Sammlung Göschen Band, 768/768a, Walter de Gruyter & Co., Berlin, 1967.
- Biernat, H.K., M.F. Heyn, and V.S. Semenov, Unsteady Petschek reconnection, *J. Geophys. Res.*, **92**, 3392–3396, 1987.
- Biernat, H.K., M.F. Heyn, R.P. Rijnbeek, V.S. Semenov, and C.J. Farrugia, The structure of reconnection layers: Application to the Earth's magnetopause, *J. Geophys. Res.*, **94**, 287–298, 1989.
- Biernat, H.K., M.F. Heyn, R.P. Rijnbeek, V.S. Semenov, and C.J. Farrugia, Reconnection at the Earth's dayside magnetopause in the presence of sheared flows and skewed fields, *Ann. Geophys.*, **8**, 69–78, 1990.
- Bigg, E. K., Influence of the satellite Io on Jupiter's decametric emission, *Nature*, **203**, 1008–1011, 1964.
- Birmingham, T. J., J. K. Alexander, M. D. Desch, R. F. Hubbard, and B. M. Pedersen, Observations of electron gyroharmonic waves in the structure of the Io torus, *J. Geophys. Res.*, **86**, 8497–8507, 1981.
- Birmingham, T. J., The Jovian magnetosphere, *Rev. Geophys. and Space Phys.*, **21**, 375–389, 1983.
- Biro, T. and K. Rannmark, Phase-space description of plasma waves. Part 1. Linear theory, *J. Plasma Physics*, **47**, 465 - 477, 1992.
- Boischot, A., Comparative Study of the 'Radio-Planets', in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer and B. M. Pedersen, p. 15, Austrian Academy of Sciences Press, Vienna, 1988.

- Boischot, A., C. Rosolen, M. G. Aubier, G. Daigne, F. Genova, Y. Leblanc, A. Lecacheux, J. de la Noë, and B. Möller–Pedersen, A new high gain, broadband, steerable array to study Jovian decametric emissions, *Icarus*, **43**, 399, 1980.
- Boischot, A., A. Lecacheux, M. L. Kaiser, M. D. Desch, J. K. Alexander, and J. W. Warwick, Radio Jupiter after Voyager: An overview of the Planetary Radio Astronomy observations, *J. Geophys. Res.*, **86**, 8213–8226, 1981.
- Boischot, A., J.H. Sastri, and P. Zarka, Localization of Io and non–Io sources of Jovian decameter emission, *Astron. Astrophys.*, **175**, 287, 1987.
- Boischot A., P. Zarka, A. Lecacheux, B. M. Pedersen, and F. Genova, The ‘bursty’ radio emission from Neptune, *J. Geophys. Res.*, not published, 1992.
- Borucki, W. J., Predictions of lightning activity at Neptune, *Geophys. Res. Lett.*, **16**, 937, 1989.
- Borucki, W. J., A. Bar–Nun, F. L. Scarf, A. F. Cook, II, and G. E. Hunt, Lightning activity on Jupiter, *Icarus*, **52**, 492, 1982.
- Borucki, W. J., C. P. McKay, and R. C. Whitters, Possible production by lightning of aerosols and trace gases in Titan’s atmosphere, *Icarus*, **60**, 260–273, 1984.
- Borucki, W. J., and C. P. McKay, Optical efficiencies of lightning in planetary atmospheres, *Nature*, **328**, 509, 1987.
- Borucki, W. J., L. P. Giver, C. P. McKay, T. Scattergood, and J. E. Parris, Lightning production of hydrocarbons and HCN on Titan: Laboratory measurements, *Icarus*, **76**, 125, 1988.
- Boudjada, M. Y., and A. Lecacheux, Faraday rotation of Jupiter’s decametric radiation, *Astron. Astrophys.*, **247**, 235–246, 1991.
- Bozyan, F. A., and J. N. Douglas, Directivity and stimulation in Jovian decametric radiation, *J. Geophys. Res.*, **81**, 3387–3392, 1976.
- Braude S. Ya., A. V. Megn, B. P. Ryabov, N. K. Sharykin, I. N. Zhouck, Decametric survey of discrete sources in the Northern sky. I. The UTR–2 radiotelescope. Experimental techniques and data processing, *Astrophys. and Space Sci.*, **54**, No.1, 3, 1978.
- Bridge, H. S., J. W. Belcher, R. J. Butler, A. J. Lazarus, A. M. Mavretic, and J. D. Sullivan, The plasma experiment on the 1977 Voyager mission, *Space Sci. Rev.*, **21**, 259, 1977.
- Bridge, H. S., F. Bagenal, J. W. Belcher, A. J. Lazarus, R. L. McNutt, J. D. Sullivan, P. R. Gazis, R. E. Hartle, K. W. Ogilvie, J. D. Scudder, E. C. Sittler, A. Eviatar, G. L. Siscoe, C. K. Goertz, and V. M. Vasyliunas, Plasma observations near Saturn: Initial results from Voyager 2, *Science*, **215**, 563, 1982.
- Broadfoot, A. L., B. R. Sandel, D. E. Shemansky, J. C. McConnell, G. R. Smith, J. B. Holberg, S. K. Atreya, T. M. Donahue, D. F. Strobel, and J. L. Bertaux, Overview of

- the Voyager Ultraviolet Spectrometry results through Jupiter encounter, *J. Geophys. Res.*, **86**, 8259–8284, 1981.
- Broadfoot, A. L., S. K. Atreya, J. L. Bertaux, J. E. Blamont, A. J. Dessler, T. M. Donahue, W. T. Forrester, D. T. Hall, F. Herbert, J. B. Holberg, D. M. Hunten, V. A. Krasnopolsky, S. Linick, J. I. Lunine, J. C. McConnell, H. W. Moos, B. R. Sandel, N. M. Schneider, D. E. Shemansky, G. R. Smith, D. F. Strobel, and R. V. Yelle, Ultraviolet spectrometer observations of Neptune and Triton, *Science*, **246**, 1459–1466, 1989.
- Brown, L. W., Spectral behaviour of Jupiter near 1 MHz, *Astrophys. J.*, **194**, L159–L162, 1974.
- Brown, L. W., Possible radio emission from Uranus at 0.5 MHz, *Astrophys. J.*, **207**, L209–L212, 1976.
- Budden, K. G., *Radio Waves in the Ionosphere*, Cambridge University Press, N. Y., 1961.
- Budden, K. G., The propagation of radio waves in the ionosphere, Cambridge Univ. Press, 1985.
- Budden, K. G., and D. Jones, Conversion of electrostatic upper hybrid emissions to electromagnetic *O* and *X* mode waves in the Earth's magnetosphere, *Ann. Geophys.*, **5A**, 21, 1987a.
- Budden, K. G., and D. Jones, The theory of radio windows in planetary magnetospheres, *Proc. Roy. Soc. Lond.*, **A 412**, 1, 1987b.
- Burke, B. F., and K. L. Franklin, Observations of a variable radio source associated with the planet Jupiter, *J. Geophys. Res.*, **60**, 213–217, 1955.
- Burlaga, L. F., MHD processes in the outer heliosphere, *Space Sci. Rev.*, **39**, 255, 1984.
- Burns, J. A., M. R. Showalter, J. N. Cuzzi, and R. H. Durisen, Saturn's electrostatic discharges: Could lightning be the cause?, *Icarus*, **54**, 280, 1983.
- Buti, B., and G. S. Lakina, Source of bursty radio emissions from Uranus, *Geophys. Res. Lett.*, **15**, 1149–1152, 1988.
- Caldwell, J., A. T. Yokunaga, and G. S. Orton, , Further observations of 8-micron polar brightenings of Jupiter, *Icarus*, **53**, 133–140, 1983.
- Calvert, W., A theory for the auroral kilometric and Jovian decametric radiation cones, *Univ. of Iowa Res. Rept.*, 81–6, 1981a.
- Calvert, W., The signature of Auroral kilometric radiation on ISIS 1 Ionograms, *J. Geophys. Res.*, **86**, 76, 1981b.
- Calvert, W., The auroral plasma cavity, *Geophys. Res. Lett.*, **8**, 919–921, 1981c.
- Calvert, W., A feedback model for the source of the auroral kilometric radiation, *J. Geophys. Res.*, **87**, 8199, 1982.
- Calvert, W., DE-1 measurements of AKR wave directions, *Geophys. Res. Lett.*, **12**, 381, 1985.

- Calvert, W., Planetary radio lasing, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p.407, Austrian Academy of Sciences Press, Vienna, 1988.
- Calvert, W., and D. Tsintikidis, New Voyager radio spectrograms of Uranus, *Univ. of Iowa Res. Rept.*, 90–13, 1990.
- Calvert, W., and K. Hashimoto, The magnetoionic modes and propagation properties of auroral kilometric emissions, *J. Geophys. Lett.*, **95**, 3943–3957, 1990.
- Carr, T. D., and M. D. Desch, Recent decametric and hectometric observations of Jupiter, in *Jupiter*, edited by T. Gehrels, pp. 693–737, University of Arizona Press, Tucson, 1976.
- Carr, T. D., M. D. Desch, and J. K. Alexander, Phenomenology of magnetospheric radio emissions, in *Physics of the Jovian Magnetosphere*, edited by A. J. Dessler, pp. 226–284, Cambridge University Press, New York, 1983.
- Carr, T. D., and S. Gulkis, The auroral kilometric radiation from Uranus and its magnetospheric implications, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p.223, Austrian Academy of Sciences Press, Vienna, 1988.
- Carr, T. D., and Wang, L., Low-frequency astrophysics from space, Lecture Notes in Physics Series, p. 113, Springer Verlag, 1991.
- Caudal, G., and J. E. P. Connerney, Plasma pressure in the environment of Jupiter, inferred from Voyager 1 magnetometer observations, *J. Geophys. Res.*, **94**, 15055–15061, 1989.
- Chang, T., and B. Coppi, Lower hybrid acceleration and ion evolution in the suprauroral region, *Geophys. Res. Lett.*, **8**, 1253, 1981.
- Chapman, S. , and J. Bartels, *Geomagnetism*, pp. 639–668, Oxford University Press, New York, 1940.
- Chenette, D. L., The propagation of Jovian electrons to Earth, *J. Geophys. Res.*, **85**, 2243, 1980.
- Chenette, D. L., T. F. Conlon, and J. A. Simpson, Bursts of relativistic electrons from Jupiter observed in interplanetary space with time variation of the planetary rotation period, *J. Geophys. Res.*, **79**, 3551, 1974.
- Chiu, Y. T., and M. Shulz, Self consistent particle and parallel electrostatic field distribution in the magnetosphere-ionosphere auroral region, *J. Geophys. Res.*, **83**, 629, 1978.
- Chree, C., Some phenomena of sunspots and terrestrial magnetism at Kew Observatory, *Phil. Trans. Roy. Soc. (A)*, **212**, 75, 1912.
- Christiansen, P. J., J. Etcheto, K. Rönnmark, and L. Stenflo, Upper hybrid turbulence as a source of nonthermal continuum radiation, *Geophys. Res. Lett.*, **11**, 139, 1984.

- Christon, S. P., D. L. Chenette, D. N. Baker, and D. Moses, Relativistic electrons at geosynchronous orbit, interplanetary electron flux, and the 13-month Jovian synodic year, *Geophys. Res. Letters*, **16**, 1129, 1989.
- Clarke, J. T., Detection of auroral H Ly- α emission from Uranus, *Astrophys. J. Lett.*, **263**, L105–L109, 1982.
- Conlon, T. F., The interplanetary modulation and transport of Jovian electrons, *J. Geophys. Res.*, **83**, 541, 1978.
- Connerney, J. E. P., The magnetic field of Jupiter: A generalized inverse approach, *J. Geophys. Res.*, **86**, 7679–7693, 1981.
- Connerney, J. E. P., The magnetospheres of Jupiter, Saturn, and Uranus, *Revs. Geophys. and Space Phys.*, **25**, No.3, 615–638, 1987.
- Connerney, J. E. P., M. H. Acuña, and N. F. Ness, Modeling the Jovian current sheet and inner magnetosphere, *J. Geophys. Res.*, **86**, 8370–8384, 1981.
- Connerney, J. E. P., and M. H. Acuña, Jovimagnetic secular variation, *Nature*, **297**, 313–315, 1982.
- Connerney, J. E. P., M. H. Acuña, and N. F. Ness, Voyager 1 assessment of Jupiter's planetary magnetic field, *J. Geophys. Res.*, **86**, 3623–3627, 1982.
- Connerney, J. E. P., N. F. Ness, and M. H. Acuña, Zonal harmonic model of Saturn's magnetic field from Voyager 1 and 2 observations, *Nature*, **298**, 44–46, 1982.
- Connerney, J. E. P., L. Davis, Jr., and D. L. Chenette, Magnetic field models, in *Saturn*, edited by T. Gehrels and M. S. Matthews, p.354, Univ. of Arizona Press, Tucson, Arizona, 1984.
- Connerney, J. E. P., M. H. Acuña, and N. F. Ness, The magnetic field of Uranus, *J. Geophys. Res.*, **92**, 15329–15336, 1987.
- Connerney, J. E. P., M. H. Acuña, and N. F. Ness, The magnetic field of Neptune, *J. Geophys. Res.*, **96**, 19023–19042, 1991.
- Cook, A. F., T. C. Duxbury, and G. E. Hunt, First results on Jovian lightning, *Nature*, **280**, 794, 1979.
- Couzens, D. A., and J. H. King, *Interplanetary Medium Data Book Supplement*, **3A**, 1977–1985, NSSDC Report 86–04, 1986.
- Cowley, S.W.H., D.J. Southwood, and M.A. Saunders, Interpretation of magnetic field perturbations in the Earth's magnetopause boundary layers, *Planet. Space Sci.*, **31**, 1237–1258, 1983.
- Cowley, S.W.H., Solar wind control of magnetospheric convection, in *Proc. Conf. Achievements of the IMS*, ESA **SP-217**, 483–494, 1984.
- Curran, D. B., and J. D. Menietti, Narrowbanded bursty radio emissions at Uranus (abstract), *AGU EOS Trans.*, **71**, 597, 1990.

- Curran, D. B., J. D. Menietti, and H. K. Wong, Ray tracing of broadband bursty radio emissions from Uranus, *Geophys. Res. Lett.*, **17**, 109, 1990.
- Curtis, S. A., Possible nightside source dominance in nonthermal radio emissions from Uranus, *Nature*, **318**, 47–48, 1985.
- Curtis, S. A., M. D. Desch, and M. L. Kaiser, The radiation belt origin of Uranus' nightside radio emission, *J. Geophys. Res.*, **92**, 15199–15205, 1987.
- Daigne, G., and Y. Leblanc, Narrow band Jovian kilometric radiation; occurrence, polarization, and rotation period, *J. Geophys. Res.*, **91**, 7961–7969, 1986.
- Davies, K., Recent progress in satellite Radio Beacon Studies with emphasis on the ATS–6 Radio Beacon experiment (Review), *Space Sci Rev.*, **25**, 357–430, 1980.
- Davies, K., W. Degenhardt, G. K. Hartmann, and R. Leitinger, Electron content measurements over the U.S. — Joint Radio Beacon Program NOAA/MPAE/Graz, *Techn. Report* (Ed.: MPAE Lindau/Harz), Lindau/Harz, BRD, 183 pages, 1976.
- Davis, L. jr., D. E. Jones, and E. Smith, The magnetic field of Jupiter, Presented at AGU fall meeting, San Francisco, 1975 (see review by Acuña et al., 1983).
- de Feraudy, H., B. M. Pedersen, A. Bahnsen, and M. Jespersen, Viking observations of auroral kilometric radiation from the plasmasphere to night auroral oval source regions, *Geophys. Res. Lett.*, **14**, 511, 1987.
- de Feraudy, H., A. Bahnsen and M. Jespersen, Observations of nightside and dayside Auroral Kilometric Radiation with Viking, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p.41, Austrian Academy of Sciences Press, Vienna, 1988.
- Degenhardt, W., G. K. Hartmann, and R. Leitinger, Effects of a magnetic storm on the plasmaspheric electron content, *J. atmos. terr. Phys.*, **39**, 1435–1440, 1977.
- de Jager, C., M. E. Bruner, C. J. Crannel, B. R. Dennis, J. R. Lemen, and S. F. Martin, in The Solar Maximum Mission Flare Workshop Proceedings, *Energetic Phenomena on the Sun*, edited by Kundu M. and Woodgate B., NASA Conference Publication **2439**, p. 5–5, 1986
- de Pater, I., Observations and models of the decimetric radio emission from Jupiter, *Ph. D. thesis*, State University of Leiden, Leiden, 1980.
- de Pater, I., and W. J. Jaffe, Very large array observations of Jupiter's non-thermal radiation, *Astrophys. J. Suppl.*, **54**, 405–419, 1984.
- Desch, M. D. and T. D. Carr, Modulation of the Jovian emission below 8 MHz, *Astron. J.*, **83**, 828–837, 1978.
- Desch, M. D., and M. L. Kaiser, The occurrence rate, polarization character, and intensity of broadband Jovian kilometric radiation, *J. Geophys. Res.*, **85**, 4248–4256, 1980.
- Desch, M. D. and M. L. Kaiser, Voyager measurement of the rotation period of Saturn's magnetic field, *Geophys. Res. Lett.*, **8**, 253, 1981.

- Desch, M. D., and H. O. Rucker, The relationship between Saturn kilometric radiation and the solar wind, *J. Geophys. Res.*, **88**, 8999–9006, 1983.
- Desch, M. D., and C. H. Barrow, Direct evidence for solar wind control of Jupiter's hectometer-wavelength radio emission, *J. Geophys. Res.*, **89**, 6819–6823, 1984.
- Desch, M. D., and M. L. Kaiser, Predictions for Uranus from a radiometric Bode's law, *Nature*, **310**, 755–757, 1984.
- Desch, M. D., J. E. P. Connerney, and M. L. Kaiser, The rotation period of Uranus, *Nature*, **322**, 42–43, 1986.
- Desch, M. D., and M. L. Kaiser, Ordinary mode radio emission from Uranus, *J. Geophys. Res.*, **92**, 15211–15216, 1987.
- Desch, M. D., M. L. Kaiser, and W. S. Kurth, Impulsive solar wind-driven emission from Uranus, *J. Geophys. Res.*, **94**, 5255–5263, 1989.
- Desch, M. D., and M. L. Kaiser, Upper limit set for level of lightning activity on Titan, *Nature*, **343**, 442, 1990.
- Desch, M. D., W. M. Farrell, and M. L. Kaiser, An anomalous component of Neptune radio emission: Implications for the auroral zone, *J. Geophys. Res.*, **96**, 1401–1408, 1991a.
- Desch, M. D., M. L. Kaiser, P. Zarka, A. Lecacheux, Y. Leblanc, M. Aubier, and A. Ortega-Molina, Uranus as a radio source, in *Uranus*, edited by J. T. Bergstrahl, E. D. Miner, and M. S. Matthews, p. 894, Univ. of Arizona Press, Tucson, Arizona, 1991b.
- Dessler, A. J., and T. W. Hill, Jovian longitudinal control of Io-related radio emission, *Astrophys. J.*, **227**, No.2, 664, 1979.
- Divine, N., and H. B. Garrett, Charged particle distributions in Jupiter's magnetosphere, *J. Geophys. Res.*, **88**, 6889–6903, 1983.
- Donivan, F. F. and T. D. Carr, Jupiter decametric rotation period, *Astrophys. J.*, **157**, L65–L68, 1969.
- Douglas, J. N., and H. J. Smith, Presence and correlation of fine structure in Jovian decametric radiation, *Nature*, **161**, 741, 1961.
- Douglas, J. N., and H. J. Smith, Interplanetary scintillation in Jovian decametric radiation, *Astrophys. J.*, **148**, 885–904, 1967.
- Dulk, G. A., Io-related radio emission from Jupiter, *Ph. D. Thesis, University of Colorado, Boulder*, p. 226–284, 1965.
- Dulk, G. A., Apparent changes in the rotation rate of Jupiter, *Icarus*, **7**, 173–182, 1967.
- Dulk, G. A., Characteristics of Jupiter's decametric radio source measured with arc-second resolution, *Astrophys. J.*, **159**, 671–684, 1970.
- Dulk, G. A. and T. A. Clark, Almost continuous radio emission from Jupiter at 8.9 and 10 MHz, *Astrophys. J.*, **145**, 945–953, 1966.

- Dulk, G. A., A. Lecacheux, and Y. Leblanc, The complete polarization state of a storm of millisecond bursts from Jupiter, *Astron. Astrophys.*, **253**, 292–306, 1992.
- Dunckel, N., B. Ficklin, L. Rorden, and R. A. Helliwell, Low frequency noise observed in the distant magnetosphere with OGO 1, *J. Geophys. Res.*, **75**, 1854, 1970.
- Dungey, J.W., Interplanetary magnetic field and the auroral zones, *Phys. Rev. Lett.*, **6**, 47–48, 1961.
- Elgarøy, E. O., *Solar Noise Storms*, Pergamon, Oxford, 1977.
- Eliasson, L., L. A. Holmgren, and K. Rönmark, Pitch angle and energy distribution of auroral electrons measured by the ESRO 4 satellite, *Planet. Space. Sci.*, **27**, 87, 1979.
- Ellis, G. R. A., An atlas of selected spectra of the Jupiter S-bursts, Univ. of Tasmania, Hobart, Tas., Australia, 1979.
- Ellis, G. R. A., Observations of the Jupiter S-bursts between 3.2 and 32 MHz, *Austral. J. Phys.*, **35**, 165, 1982.
- Ellyett, C. D., Radio noise of auroral origin, *J. Atmos. Terr. Phys.*, **32**, 671–682, 1969.
- Engel, J., and C. F. Kennel, Effect of parallel refraction on magnetospheric upper hybrid waves, *Geophys. Res. Lett.*, **11**, 865, 1984.
- Eraker, J. H., and J. A. Simpson, Jovian electron propagation close to the Sun (< 0.5 AU), *Astrophys. J. Lett.*, **232**, L131, 1979.
- Erickson, W. C., J. R. Fisher, A new wideband, fully steerable, decametric array at Clark Lake, *Radio Science*, **9**, 387, 1974.
- Etcheto, J., P. J. Christiansen, M. P. Gough, and J. G. Trotignon, Terrestrial continuum radiation observations with GEOS-1 and ISEE-1, *Geophys. Res. Lett.*, **9**, 1239–1242, 1982.
- Evans, D. R., J. W. Warwick, J. B. Pearce, T. D. Carr, and J. J. Schauble, Impulsive radio discharges near Saturn, *Nature*, **292**, 716, 1981.
- Evans, D. R., J. H. Romig, C. W. Hord, K. E. Simmons, J. W. Warwick, and A. L. Lane, The source of Saturn electrostatic discharges, *Nature*, **299**, 236, 1982.
- Evans, D. R., J. H. Romig, and J. W. Warwick, Saturn's electrostatic discharges: Properties and theoretical considerations, *Icarus*, **54**, 267, 1983.
- Evans, D. R., J. H. Romig, and J. W. Warwick, Bursty radio emissions from Uranus, *J. Geophys. Res.*, **92**, 15206–15210, 1987.
- Fainberg, J., Technique to determine location of radio sources from measurements taken on spinning spacecraft. NASA, *Technical Memorandum* **80598**, 1979.
- Farrell, W. M., and W. Calvert, The source location and beaming of broadband bursty radio emissions from Uranus, *J. Geophys. Res.*, **94**, 217–225, 1989a.

- Farrell, W. M., and W. Calvert, Source location of the smooth high-frequency radio emissions from Uranus, *Geophys. Res. Lett.*, **16**, 341–344, 1989b.
- Farrell, W. M., M. D. Desch, M. L. Kaiser, and W. S. Kurth, Source location of the narrowbanded radio bursts at Uranus: Evidence of a cusp source, *Geophys. Res. Lett.*, **17**, 295–298, 1990a.
- Farrell, W. M., M. D. Desch, and M. L. Kaiser, Field-independent source localization of Neptune's radio bursts, *J. Geophys. Res.*, **95**, 19143–19148, 1990b.
- Farrell, W. M., and W. Calvert, New arcs associated with the smooth high frequency radiation at Uranus, *J. Geophys. Res.*, **95**, 8259–8264, 1990.
- Farrell, W. M., M. D. Desch, M. L. Kaiser, and W. Calvert, Evidence of auroral plasma cavities at Uranus and Neptune from radio burst observations, *J. Geophys. Res.*, **96**, 19049, 1991.
- Farrell, W. M. and M. D. Desch, Cloud-to-stratosphere lightning discharges: A radio emission model, *Geophys. Res. Lett.*, **19**, 665–668, 1992.
- Farrell, W. M., S. A. Curtis, M. D. Desch, and R. P. Lepping, A theory for narrowbanded radio bursts at Uranus: MHD surface waves as an energy driver, *J. Geophys. Res.*, **97**, 4133, 1992.
- Fjeldbo, G., A. Kliore, B. Seidel, D. Sweetnam, and D. Cain, The Pioneer 10 radio occultation measurements of the ionosphere of Jupiter, *Astron. and Astrophys.*, **39**, 91, 1975.
- Freeman, J.W., H.K. Hills, T.W. Hill, and P.H. Reiff, Heavy ion circulation in the earth's magnetosphere, *Geophys. Res. Lett.*, **4**, 195–197, 1977.
- Freund, H. P., H. K. Wong, C. S. Wu, and M. J. Xu, An electron cyclotron maser instability for astrophysical plasmas, *Phys. Fluids*, **26**, 1983.
- Gallagher, D. L., and N. D'Angelo, Correlations between solar wind parameters and auroral kilometric radiation intensity, *Geophys. Res. Lett.*, **8**, 1087–1090, 1981.
- Galopeau, P., P. Zarka, and D. Le Quéau, Theoretical model of Saturn's kilometric radiation spectrum, *J. Geophys. Res.*, **94**, 8739, 1989.
- Galopeau, P., A. Orgega-Molina, and P. Zarka, Evidence of Saturn's magnetic field anomaly from Saturnian kilometric radiation high-frequency limit, *J. Geophys. Res.*, **96**, 14129–14140, 1991.
- Gekelman, W., and R. L. Stenzel, Localized fields and density perturbations due to non-linear lower hybrid waves, *Phys. Rev. Lett.* **35**, 1708, 1975
- Genova, F., Les émissions radio aurales des planètes, *Ann. Phys. Fr.*, **12**, 57–107, 1987.
- Genova, F., and A. Boischot, Structure of the source of Jovian decametric emission and interplanetary scintillation, *Nature*, **293**, 382, 1981.
- Genova, F., and Y. Leblanc, Interplanetary scintillation and Jovian DAM emission, *Astron. Astrophys.*, **98**, 133, 1981.

- Genova, F., M. G. Aubier, and A. Lecacheux, Modulations in Jovian decametric spectra: Propagation effects in terrestrial ionosphere and Jovian environment, *Astron. Astrophys.*, **104**, 229–239, 1981.
- Genova, F., B. M. Pedersen, and A. Lecacheux, Dynamic spectra of Saturn kilometric radiation, *J. Geophys. Res.*, **88**, 8985, 1983.
- Genova, F. and M. G. Aubier, High frequency limit and visibility of the non-Io and Io-dependent Jovian decameter radio emission, *Astron. Astrophys.*, **177**, 303–309, 1987.
- Genova, F., P. Zarka, and C. H. Barrow, Voyager and Nancay observations of the Jovian radio-emission at different frequencies: Solar wind effect and source extent, *Astron. Astrophys.*, **182**, 159–162, 1987.
- Genova, F., and W. Calvert, The source location of Jovian millisecond radio bursts with respect to Jupiter's magnetic field, *J. Geophys. Res.*, **93**, 979–986, 1988.
- Goldman, M. V. and D. Newman, Electromagnetic beam modes driven by anisotropic electron streams, *Phys. Rev. Lett.*, **58**, 1849, 1987.
- Goldstein, M. L., R. R. Sharma, M. Ben-Ari, A. Eviatar, and K. Papadopoulos, A theory of Jovian decametric radiation, *J. Geophys. Res.*, **88**, 792, 1983.
- Goldstein, M. L., and C.K. Goertz, Theories of radio emissions and plasma waves, in *Physics of the Jovian Magnetosphere*, edited by A.J. Dessler, p.317, Cambridge Univ. Press, New York, 1983.
- Gosling, J.T., M.F. Thomsen, S.J. Bame, R.C. Elphic, and C.T. Russell, Plasma flow reversals at the dayside magnetopause and the origin of asymmetric polar cap convection, *J. Geophys. Res.*, **95**, 8073–8084, 1990.
- Gough, M. P., Nonthermal continuum emissions associated with electron injections: remote plasmopause soundings, *Planet. Space Sci.*, **30**, 657–668, 1982.
- Grabbe, C., Extraordinary-mode resonance cones in the Uranian magnetosphere?, *J. Geophys. Res.*, **93**, 14304–14315, 1988a.
- Grabbe, C., Extraordinary-mode waves on the resonance cone detected at Uranus, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 237, Austrian Academy of Sciences Press, Vienna, 1988b.
- Green, J. L., The Io decametric emission cone, *Radio Science*, **19**, 2, 556, 1984.
- Green, J. L., D. A. Gurnett, and S. D. Shawhan, The angular distribution of auroral kilometric radiation, *J. Geophys. Res.*, **82**, 1825, 1977.
- Green, J. L., and D. A. Gurnett, Ray tracing of Jovian kilometric radiation, *Geophys. Res. Lett.*, **7**, 65–68, 1980.
- Gulkis, S., and T. D. Carr, Radio rotation period of Jupiter, *Science*, **154**, 257–259, 1966.
- Gulkis, S., and T. D. Carr, The main source of radio emission from the magnetosphere of Uranus, *J. Geophys. Res.*, **92**, 15159–15168, 1987.

- Gurnett, D. A., The Earth as a radio source: Terrestrial Kilometric Radiation, *J. Geophys. Res.*, **79**, 4227–4238, 1974.
- Gurnett, D. A., and R. R. Shaw, Electromagnetic radiation trapped in the magnetosphere above the plasma frequency, *J. Geophys. Res.*, **78**, 8136, 1973.
- Gurnett, D. A., The Earth as a radio source: The nonthermal continuum, *J. Geophys. Res.*, **80**, 2751, 1975.
- Gurnett, D. A., R. R. Anderson, F. L. Scarf, R. W. Fredricks, and E. J. Smith, Initial results from the ISEE–1 and 2 plasma wave investigation. *Space Sci. Rev.*, **23**, 103–122, 1979.
- Gurnett, D. A., R. R. Shaw, R. R. Anderson, W. S. Kurth, and F. L. Scarf, Whistlers observed by Voyager 1: Detection of lightning on Jupiter, *Geophys. Res. Lett.*, **6**, 511, 1979.
- Gurnett, D. A., W. S. Kurth, and F. L. Scarf, The structure of the Jovian magnetotail from plasma wave observations, *Geophys. Res. Lett.*, **7**, 53, 1980.
- Gurnett, D. A., and C. K. Goertz, Multiple Alfvén wave reflections excited by Io: Origin of the Jovian decametric arcs, *J. Geophys. Res.*, **86**, 717–722, 1981.
- Gurnett, D. A., W. S. Kurth, and F. L. Scarf, Narrowband electromagnetic emissions from Saturn’s magnetosphere, *Nature*, **292**, 733, 1981.
- Gurnett, D. A., and R. R. Anderson, The kilometric radio emission spectrum: Relationship to auroral acceleration processes, in *Physics of auroral arc formation*, *Geophys. Monogr. Ser.*, 25, edited by S. –I. Akasofu and J. R. Kan, pp 341–350, AGU Washington DC, 1981.
- Gurnett, D. A., W. S. Kurth, and F. L. Scarf, Narrowband electromagnetic emissions from Jupiter’s magnetosphere, *Nature*, **302**, 385, 1983.
- Gurnett, D. A., W. S. Kurth, F. L. Scarf, and R. L. Poynter, First plasma wave observations at Uranus, *Science*, **233**, 106–109, 1986.
- Gurnett, D. A., W. Calvert, R. L. Huff, D. Jones, and M. Sugiura, The polarization of escaping terrestrial continuum radiation, *J. Geophys. Res.*, **93**, 1988.
- Gurnett, D. A., W. S. Kurth, R. L. Poynter, L. J. Granroth, I. H. Cairns, W. M. Macek, S. L. Moses, F. V. Coroniti, C. F. Kennel, and D. D. Barbosa, First plasma wave observations at Neptune, *Science*, **246**, 1494, 1989.
- Gurnett, D. A., W. S. Kurth, I. H. Cairns, and L. J. Granroth, Whistlers in Neptune’s magnetosphere: Evidence for atmospheric lightning, *J. Geophys. Res.*, **95**, 20967, 1990.
- Hansen, F. R., J. P. Lynov, C. Maroli, and V. Petrillo, Full-wave calculations of the O–X mode conversion process, *J. Plasma Phys.*, **39**, 31, 1988.
- Haselgrove, J., Ray theory and a new method for ray tracing, in *Report of Conference on the Physics of the Ionosphere*, p. 355, London Physical Society, London, 1955.

- Hashimoto, K., and M. L. Goldstein, A theory of the Io phase asymmetry of the Jovian decametric radiation, *J. Geophys. Res.*, **88**, 2010–2020, 1983.
- Hayes, L. M., and D. B. Melrose, Generation of ordinary modes of auroral kilometric radiation, *J. Geophys. Res.*, **91**, 211–217, 1986.
- Helliwell, R. A., *Whistlers and Related Ionospheric Phenomena*, Stanford University Press, Stanford, Calif., 1965.
- Herbert, F., and B. R. Sandel, The Uranian aurora, (Abstract), presented at the Fred Scarf Memorial Symposium on Magnetospheres of the Outer Planets, Annapolis, MD, August 20–24, 1990.
- Heyn, M.F., H.K. Biernat, V.S. Semenov, and I.V. Kubyshkin, Dayside magnetopause reconnection, *J. Geophys. Res.*, **90**, 1781–1785, 1985.
- Heyn, M.F., H.K. Biernat, R.P. Rijnbeek and V.S. Semenov, The structure of reconnection layers, *J. Plasma Phys.*, **40**, 235–252, 1988.
- Heyn, M.F., MHD models of magnetic field diffusion and reconnection, in *Solar Wind–Magnetosphere Interactions*, edited by M.F. Heyn, H.K. Biernat, V.S. Semenov, and R.P. Rijnbeek, pp. 85–112, Austrian Academy of Sciences, Vienna, 1992.
- Hildebrandt, J., Model calculations of solar microwave radiation on the basis of direct emission mechanisms, *Dissertation*, Berlin, 1983.
- Hilgers, A., The auroral radiating plasma cavities, *Geophys. Res. Lett.*, **19**, 237, 1992.
- Hilgers, A., A. Roux, and R. Lundin, Characteristics of AKR sources: A statistical description, *Geophys. Res. Lett.*, **18**, 1493, 1991.
- Hilgers, A., H. de Feraudy, and D. Le Quéau, Measurement of the direction of the AKR electric field inside the sources with the Viking Satellite, *J. Geophys. Res.*, **97**, 8381, 1992a.
- Hilgers, A., B. Holback, G. Holmgren, and R. Boström, Probe measurements of low plasma densities with applications to auroral acceleration region and AKR sources, *J. Geophys. Res.*, **97**, 8631, 1992b.
- Hill, T. W., and A. J. Dessler, Remote sensing of the magnetic moment of Uranus: Prediction for Voyager, *Science*, **227**, 1460–1469, 1985.
- Horne, R. B., Ray tracing of electrostatic waves in a hot plasma and its application to the generation of terrestrial myriametric radiation, *Geophys. Res. Lett.*, **15**, 553, 1988.
- Horne, R. B., Narrow-band structure and amplitude of terrestrial myriametric radiation, *J. Geophys. Res.*, **95**, 3925, 1990.
- Huang, Y.-N., Some results of ionospheric slab thickness observations at Lunping, *J. Geophys. Res.*, **88**, 5517–5522, 1983.
- Huff, R. L., W. Calvert, J. D. Craven, L. A. Frank, and D. A. Gurnett, Mapping of auroral kilometric radiation sources to the aurora, *J. Geophys. Res.*, **93**, 11445, 1988.

- Jones, D. L., Extremely low frequency ionospheric radio propagation studies using natural signals, *IEEE Trans. Comm.*, **22**, 477, 1974.
- Jones, D., Source of terrestrial non-thermal radiation, *Nature*, **260**, 686–689, 1976.
- Jones, D., Mode coupling of Z-mode waves as a source of auroral kilometric radiation and Jovian decameter radiation, *Astron. Astrophys.*, **55**, 245, 1977.
- Jones D., Latitudinal beaming of planetary radio emissions, *Nature*, **288**, 225–229, 1980.
- Jones, D., Beaming of terrestrial myriametric radiation, *Adv. Space Res.*, **1**, 373, 1981.
- Jones, D., Terrestrial myriametric radiation from the Earth's plasmopause, *Planet. Space Sci.*, **30**, 399, 1982.
- Jones, D., Source of Saturnian myriametric radiation, *Nature*, **306**, 453, 1983.
- Jones, D., Non thermal continuum radiation at the radio planets, in *Planetary Radio Emissions*, edited by H. O. Rucker and S. J. Bauer, p. 11, Austrian Academy of Sciences Press, Vienna, 1985.
- Jones, D., Io plasma torus and the source of Jovian kilometric radiation (bKOM), *Nature*, **324**, 40, 1986.
- Jones, D., Io plasma torus and the source of Jovian narrow-band kilometric radiation, *Nature*, **327**, 492, 1987a.
- Jones, D., The magnetopause as a source of nonthermal continuum radiation, *Physica Scripta*, **35**, 887, 1987b.
- Jones, D., Planetary radio emissions from low magnetic latitudes: Observations and theories, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 255, Austrian Academy of Sciences Press, Vienna, 1988.
- Jones, D., and Y. Leblanc, Source of broadband kilometric radiation, *Ann. Geophysicae*, **5A**, 29–38, 1987.
- Jones, D., W. Calvert, D. A. Gurnett, and R. L. Huff, Observed beaming of terrestrial myriametric radiation, *Nature*, **328**, 391, 1987.
- Joshi, H. P., K. N. Iyer, and A. V. Janve, Protonospheric depletion and recovery during geomagnetic storms, *Radio Sci.*, **19**, 765–767, 1984.
- Kaiser, M. L., and R. G. Stone, Earth as an intense planetary radio source: Similarities to Jupiter and Saturn, *Science*, **189**, 285, 1975.
- Kaiser, M. L., Uranus radio emissions, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p.203, Austrian Academy of Sciences Press, Vienna, 1988.
- Kaiser, M. L., Observation of non-thermal radiation from planets, in *Plasma Waves and Instabilities at Comets and in Magnetospheres*, edited by B. T. Tsurutani and H. Oya, p. 221, American Geophysical Union, Washington, 1989.

- Kaiser, M. L., and J. K. Alexander, Source location measurement of terrestrial kilometric radiation obtained from lunar orbit, *Geophys. Res. Lett.*, **3**, 37, 1976.
- Kaiser, M. L., J. K. Alexander, A. C. Riddle, J. B. Pearce, and J. W. Warwick, Direct measurements by Voyager 1 and 2 of the polarization of terrestrial kilometric radiation, *Geophys. Res. Lett.*, **5**, 857–860, 1978.
- Kaiser, M. L., M. D. Desch, A. C. Riddle, A. Lecacheux, J. B. Pearce, J. K. Alexander, J. W. Warwick, and J. R. Thieman, Voyager spacecraft radio observations of Jupiter: Initial cruise results, *Geophys. Res. Lett.*, **6**, 507–510, 1979.
- Kaiser, M. L., and M. D. Desch, Narrow-band Jovian kilometric radiation: A new radio component, *Geophys. Res. Lett.*, **7**, 389–392, 1980.
- Kaiser, M. L., M. D. Desch, and A. Lecacheux, Saturn kilometric radiation: Statistical properties and beam geometry, *Nature*, **292**, 731, 1981.
- Kaiser, M. L., and M. D. Desch, Saturnian kilometric radiation: Source locations, *J. Geophys. Res.*, **87**, 4555, 1982.
- Kaiser, M. L., J. E. P. Connerney, and M. D. Desch, Atmospheric storm explanation of Saturn's electrostatic discharges, *Nature*, **303**, 50–53, 1983.
- Kaiser, M. L., M. D. Desch, and J. E. P. Connerney, Saturn's ionosphere: Inferred electron densities, *J. Geophys. Res.*, **89**, 2371, 1984.
- Kaiser, M. L., and M. D. Desch, Radio emissions from the planets Earth, Jupiter and Saturn, *Rev. Geophys. Space Phys.*, **22**, 373–384, 1984.
- Kaiser, M. L., M. D. Desch, W. S. Kurth, A. Lecacheux, F. Genova, B. M. Pedersen, and D. R. Evans, Saturn as a radio source, in *Saturn*, edited by T. Gehrels and M. S. Matthews, p. 378, Univ. of Arizona Press, Tucson, 1984.
- Kaiser, M. L., M. D. Desch, and S. A. Curtis, The sources of Uranus' dominant nightside radio emissions, *J. Geophys. Res.*, **92**, 15169–15176, 1987.
- Kaiser, M. L., M. D. Desch, and J. E. P. Connerney, Radio emission from the magnetic equator of Uranus, *J. Geophys. Res.*, **94**, 2399–2404, 1989.
- Kaiser, M. L., P. Zarka, M. D. Desch, and W. M. Farrell, Restrictions on the characteristics of Neptunian lightning, *J. Geophys. Res.*, **96**, Supplem., 19043, 1991.
- Kennel, C. F., and J. E. Maggs, Possibility of detecting magnetospheric radio bursts from Uranus and Neptune, *Nature*, **261**, 299–301, 1976.
- Kennel, C. F., and M. Ashour-Abdalla, Electrostatic waves and the strong diffusion of magnetospheric electrons, in *Magnetospheric Plasma Physics*, edited by A. Nishida, p. 245, Reidel, 1982.
- Kennel, C. F., R. F. Chen, S. L. Moses, W. S. Kurth, F. V. Coroniti, F. L. Scarf, and F. F. Chen, Z mode radiation in Jupiter's magnetosphere, *J. Geophys. Res.*, **92**, 9978, 1987.

- Kim, S. J., P. Drossart, J. Caldwell, J.-P. Maillard, T. Herbst, and M. Shure, Images of aurorae on Jupiter from H3+ emissions at 4 microns, *Nature*, **353**, 536–539, 1991.
- Kistler, A. C., Voyager 2 detection of Uranian hectometric radio arcs, M.S. Thesis, University of Iowa, 1988.
- Krüger, A., *Introduction to Solar Radio Astronomy and Radio Physics*, Reidel, Dordrecht, 1979.
- Kraus, J. D., *Radio Astronomy*, Cygnus–Quasar Books, Powell, Ohio, 2nd edition, 1986.
- Krauss–Varban, D., D. Burgess, and C. S. Wu, Electron acceleration at nearly perpendicular collisionless shocks; 1. one dimensional simulations without electron scale fluctuations, *J. Geophys. Res.*, **94**, 15089, 1989.
- Krimigis, S. M., E. T. Sarris, and T. P. Armstrong, Observations of quiet–time interplanetary electron enhancements of Jovian origin, *Proc. 14th Internat. Cosmic Ray Conf. (Munich)*, **2**, 752, 1975.
- Kuijpers, J., Generation of intermediate drift bursts in solar type–IV radio continua through coupling of whistlers and Langmuir waves, *Solar Phys.*, **44**, 173, 1975.
- Kundu, M. R., *Solar Radio Astronomy*, Wiley Interscience, New York, 1965.
- Kundu, M. R., Advances in solar radio astronomy, *Rept. Prog. Phys.*, **45**, 1435, 1982.
- Kurth, W. S., Detailed observations of the source of terrestrial narrowband electromagnetic radiation, *Geophys. Res. Lett.*, **9**, 1341, 1982.
- Kurth, W. S., Plasma waves and continuum radiation in planetary magnetospheres, in *Proceedings, Comparative Study of Magnetospheric Systems*, ed. by B. M. Pedersen, D. LeQueau, A. Roux, and A. Saint–Marc, Cepadues–Editions, La Londe des Maures, France, September 9–13, p. 497, 1986.
- Kurth, W. S., M. M. Baumbach, and D. A. Gurnett, Direction–finding measurements of auroral kilometric radiation, *J. Geophys. Res.*, **80**, 2764, 1975.
- Kurth, W. S., J. D. Craven, L. A. Frank, and D. A. Gurnett, Intense electrostatic waves near the upper hybrid resonance frequency, *J. Geophys. Res.*, **84**, 4145, 1979.
- Kurth, W. S., D. A. Gurnett, and R. R. Anderson, Escaping nonthermal continuum radiation, *J. Geophys. Res.*, **86**, 5519, 1981.
- Kurth, W. S., F. L. Scarf, J. D. Sullivan, and D. A. Gurnett, Detection of nonthermal continuum radiation in Saturn’s magnetosphere, *Geophys. Res. Lett.*, **9**, 889, 1982.
- Kurth, W. S., B. D. Strayer, D. A. Gurnett, and F. L. Scarf, A summary of whistlers observed by Voyager 1 at Jupiter, *Icarus*, **61**, 497, 1985.
- Kurth, W. S., D. A. Gurnett, and F. L. Scarf, Sporadic narrowband radio emissions from Uranus, *J. Geophys. Res.*, **91**, 11959–11964, 1986.
- Kurth, W. S., D. D. Barbosa, D. A. Gurnett, and F. L. Scarf, Electrostatic waves in the magnetosphere of Uranus, *J. Geophys. Res.*, **92**, 15225, 1987.

- Kurth, W. S., D. D. Barbosa, D. A. Gurnett, R. L. Poynter, and I. H. Cairns, Low-frequency radio emissions at Neptune, *Geophys. Res. Lett.*, **17**, 1649, 1990a.
- Kurth, W. S., D. A. Gurnett, and M. D. Desch, Continuum radiation at Uranus, *J. Geophys. Res.*, **95**, 1103, 1990b.
- L'Heureux, J., C. Y. Fan, and P. Meyer, The quiet time spectra of cosmic electrons of energies between 10 and 200 MeV observed on OGO 5, *Astrophys. J.*, **171**, 363, 1972.
- L'Heureux, J., and P. Meyer, Quiet-time increase of low-energy electrons: The Jovian origin, *Astrophys. J.*, **209**, 955, 1976.
- Lühr, H. and N. Klöcker, AMPTE-IRM observations of magnetic cavities near the magnetopause, *Geophys. Res. Lett.*, **14**, 186–189, 1987.
- LaBelle, J., Radio noise of auroral origin: 1968–1988, *J. Atmos. Terr. Phys.*, **51**, 197–211, 1989.
- LaBelle, J., R.A. Treumann, G. Haerendel, O.H. Bauer, G. Paschmann, W. Baumjohann, H. Lühr, R.R. Anderson, H.C. Koons, and R.H. Holzworth, AMPTE IRM observations of waves associated with flux transfer events in the magnetosphere, *J. Geophys. Res.*, **92**, 5827–5843, 1987.
- Lacombe, C., A. Mangeney, C. S. Harvey, and J. D. Scudder, Electron plasma waves upstream of the Earth's bow shock, *J. Geophys. Res.*, **90**, 73, 1985.
- Ladreitner, H. P., The cyclotron maser instability: Application to low density magnetoplasmas, *Astrophys. J.*, **370**, 419–426, 1991.
- Ladreitner, H. P., and Y. Leblanc, Jovian hectometric radiation – Beaming, source extension, and solar wind control, *Astron. Astrophys.*, **226**, 297–310, 1989.
- Ladreitner, H. P., and Y. Leblanc, Source location of the Jovian hectometric radiation via ray-tracing technique, *J. Geophys. Res.*, **95**, 6423–6435, 1990a.
- Ladreitner, H. P., and Y. Leblanc, Modeling of the Jovian hectometric radiation: A three-dimensional study, *Ann. Geophysicae*, **8**, 477–487, 1990b.
- Ladreitner, H. P., and Y. Leblanc, Prediction of the Ulysses hectometric observations, *J. Geophys. Res.*, **96**, 21207, 1991.
- Ladreitner, H. P., W. Macher, H. O. Rucker, and G. K. F. Rabl, Direction finding of electromagnetic waves, *Publ. Austrian Academy of Sciences*, SRI **70**, 1991.
- Ladreitner, H. P., Y. Leblanc, G. K. F. Rabl, and H. O. Rucker, Emission characteristics and source location of the smooth Neptunian kilometric radiation, *J. Geophys. Res.*, **96**, 19101, 1991.
- Landau L. D., and E. M. Lifschits, Hydrodynamic, Nauka, 736 pp, Moskva, 1986 (in Russian).
- Langel, R. A., and R. H. Estes, A geomagnetic field spectrum, *Geophys. Res. Lett.*, **9**, 250–253, 1982.

- Langel, R. A., The main field, in *Geomagnetism*, **Vol. 1**, ed. J. A. Jacobs, Academic Press (London), 249–513, 1987.
- Larsson, J., Linear and nonlinear geometric optics. Part 1. Constitutive relations and three-wave interaction, *J. Plasma Phys.*, **42**, 479, 1989.
- Lazarus, A. J., and H. R. L. McNutt, Jr., Low energy plasma ion observations in Saturn's magnetosphere, *J. Geophys. Res.*, **88**, 8831, 1983.
- Leblanc, Y., On the arc structure of the DAM Jupiter emission, *J. Geophys. Res.*, **86**, 8564–8568, 1981.
- Leblanc Y., F. Genova, and J. de la Noë, The Jovian S-bursts. I. Occurrence with L-bursts and frequency limit, *Astron. Astrophys.*, **86**, 342, 1980a.
- Leblanc, Y., M. G. Aubier, C. Rosolen, F. Genova, and J. de la Noë, The Jovian S-bursts. II. Frequency drift measurements at different frequencies throughout several storms, *Astron. Astrophys.*, **86**, 349, 1980b.
- Leblanc, Y., and F. Genova, The Jovian S-burst sources, *J. Geophys. Res.*, **86**, 8564, 1981.
- Leblanc, Y., J. de la Noë, F. Genova, A. Gerbault, and A. Lecacheux, A catalogue of Jovian decametric radio emission from January 1978 to December 1979, *Astron. Astrophys. Suppl. Ser.*, **46**, 135–149, 1981.
- Leblanc, Y., and G. Daigne, Broadband Jovian kilometric radiation: New results on polarization and beaming, *J. Geophys. Res.*, **90**, 12073–12080, 1985a.
- Leblanc, Y., and G. Daigne, The broadband Jovian kilometric radiation: Statistical properties and source model, in *Planetary Radio Emissions*, edited by H. O. Rucker and S. J. Bauer, p.112, Austrian Academy of Sciences Press, Vienna, 1985b.
- Leblanc, Y., M. G. Aubier, A. Ortega-Molina, and A. Lecacheux, Overview of the Uranian radio emissions: Polarization and constraints on source locations, *J. Geophys. Res.*, **92**, 15125, 1987.
- Leblanc, Y., and H. P. Ladreiter, Neptune's radio emissions, *Adv. Space Res.*, **12**, No. 11, 23 – 36, 1992.
- Lecacheux, A., Spectral study of the polarization of the Jovian decametric radio, *Astron. Astrophys.*, **49**, 197, 1976.
- Lecacheux, A., Direction finding of a radio source with unknown polarization with short electric antennas on a spacecraft, *Astron. Astrophys.*, **70**, 701, 1978.
- Lecacheux, A., Ray tracing in the Io plasma torus: Application to the PRA observations during Voyager 1's closest approach, *J. Geophys. Res.*, **86**, 8523–8528, 1981.
- Lecacheux, A., Polarization Aspects from Planetary Radio Emissions, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 311, Austrian Academy of Sciences Press, Vienna, 1988.

- Lecacheux, A., B. M. Pedersen, A. C. Riddle, J. B. Pearce, A. Boischot, and J. W. Warwick, Some spectral characteristics of the hectometric Jovian emission, *J. Geophys. Res.*, **85**, 6877–6882, 1980.
- Lecacheux A., and F. Genova, Source location of Saturn kilometric radio emission, *J. Geophys. Res.*, **88**, 8993, 1983.
- Lecacheux, A., and A. Ortega–Molina, Polarization and localization of the Uranian radio sources, *J. Geophys. Res.*, **92**, 15148–15158, 1987.
- Lecacheux, A., A. Boischot, M. Y. Boudjada, and G. A. Dulk, Spectra and complete polarization state of two, Io–related, radio storms from Jupiter, *Astron. Astrophys.*, **251**, 339–348, 1991.
- Leitinger, R., TEC, slab thickness, form factor and the International Reference ionosphere, In: Proceedings of the International Beacon Satellite Symposium 1990, (Ed.: National University of Tucumán), Tucumán, Argentina, 209–212, 1990.
- Leitinger, R., Ionospheric propagation errors, In: Theoretical problems of space and fusion plasmas, (Ed.: H. K. Biernat, S. J. Bauer, M. Heindler), 147–156, Austrian Academy of Sciences Press, Vienna, 1991.
- Leitinger, R., G. Schmidt, and A. Tauriainen, An evaluation method combining the differential Doppler measurements from two stations that enables the calculation of the electron content of the ionosphere, *J. Geophysics (Zs. Geophysik)*, **41**, 201–213, 1975.
- Leitinger, R., and E. Putz, Die Auswertung von Differenz–Doppler–Messungen an den Signalen von Navigationssatelliten. *Techn. Report*, Graz, 70 pages, 1978.
- Leitinger, R., and E. Putz, Ionospheric refraction errors and observables, In: Atmospheric effects on geodetic space measurements (Ed.: F. K. Brunner), Monograph **12**, School of Surveying, University of New South Wales, Australia, 81–102, 1988.
- Leitinger, R., and E. Putz, Untersuchung der Begrenzung von F–Schicht–Prognosen durch den Einfluß atmosphärischer Schwerewellen. *Kleinheubacher Ber.*, **34**, 535–542, 1991.
- Le Quéau, D., Planetary radio emissions from high magnetic latitudes: the ‘Cyclotron Maser’ theory, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 381, Austrian Academy of Sciences Press, Vienna, 1988.
- Le Quéau, D., R. Pellat, and A. Roux, Direct generation of the auroral kilometric radiation by the maser synchrotron instability: Physical discussion of the mechanism and parametric study, *J. Geophys. Res.*, **89**, 2831, 1984a.
- Le Quéau, D., R. Pellat, and A. Roux, Direct generation of the auroral kilometric radiation by the maser synchrotron instability: An analytical approach, *Phys. Fluids*, **27**, 247, 1984b.
- Le Quéau, D., R. Pellat, and A. Roux, The maser synchrotron instability in an inhomogeneous medium: Application to the generation of auroral kilometric radiation, *Ann. Geophys.*, **3**, 273–291, 1985.

- Le Quéau, D., and P. Louarn, Analytical study of the relativistic dispersion : Application to the generation of AKR, *J. Geophys. Res.*, **94**, 2605, 1989.
- Leroy, M. M., and A. Mangeney, A theory of energization of solar wind electrons by the Earth's bow shock, *Ann. Geophys.*, **2**, 449–456, 1984.
- Lewis, J. S., Lightning on Jupiter: Rate, energetics, and effects, *Science*, **210**, 1351, 1980.
- Lindal, G. F., J. R. Lyons, D. N. Sweetnam, V. R. Eshleman, D. P. Hinson, and G. L. Tyler, The atmosphere of Uranus: Results of radio occultation measurements with Voyager 2, *J. Geophys. Res.*, **92**, 14987–15001, 1987.
- Liu, X. M., and K. Davies, Global measurements of the slab thickness of the ionosphere and The predawn peak in slab thickness over a solar cycle. In: Proceedings of the International Beacon Satellite Symposium 1990 (Ed.: National University of Tucumán), Tucumán, Argentina, 159–163 and 164–169, 1990.
- Lotko, W., and J. E. Maggs, Damping of electrostatic noise by warm auroral electrons, *Planet. Space Sci.*, **27**, 1491, 1979.
- Louarn, P., A. Roux, H. de Feraudy, D. Le Quéau, M. André, and L. Matson, Trapped electrons as a free energy source for the auroral kilometric radiation, *J. Geophys. Res.*, **95**, 5983, 1990.
- Louarn, P., D. Le Quéau, and A. Roux, Formation of electron trapped population and conics inside and near auroral acceleration region, *Ann. Geophys.*, **9**, 553, 1991.
- Lowes, F. J., Spatial power spectrum of the main geomagnetic field and extrapolation to the core, *Geophys. J. R. Astron. Soc.*, **36**, 717–730, 1974.
- Lynch, M. A., T. D. Carr, J. May, W. F. Block, V. M. Robinson, and N. F. Six, Long-baseline analysis of a Jovian decametric L-burst, *Astrophys. Lett.*, **10**, 153–158, 1972.
- Maeda, K., Interplanetary scintillation in Jupiter's decametric radiation, *Publ. Astron. Soc. Japan*, **33**, 465, 1981.
- Maeda, K., Broadband observations of Jovian decametric radiation, *Solar Terrest. Environ. Res. Japan*, **11**, 14, 1987.
- Magalhaes, J. A., and W. J. Borucki, Spatial distribution of visible lightning on Jupiter, *Nature*, **349**, 311, 1991.
- Maggs, J. E., and W. Lotko, Altitude dependent model of the auroral beam and beam generated electrostatic noise, *J. Geophys. Res.*, **86**, 3439, 1981.
- Mandt, M. E., and J. R. Kan, Dispersive and viscous scale lengths in the two-stage ion heating at quasi-parallel collisionless shocks, *J. Geophys. Res.*, **95**, 6353, 1990.
- Mann, G., M. Karlický, and U. Motschmann, On the intermediate drift burst model, *Solar Phys.*, **110**, 381, 1987.
- McConnell, D., Spectral characteristics of solar S-bursts, *Solar Phys.*, **78**, 253, 1982.

- McDonald, F. B., T. L. Cline, and G. M. Simnett, Multifarious temporal variations of low-energy relativistic cosmic ray electrons, *J. Geophys. Res.*, **77**, 2213, 1972.
- McDonald, S. W., Phase-space representations of wave equations with applications to the eikonal approximation for short-wavelength waves, *Phys. Rep.*, **158**, 337, 1988.
- McDonald, S. W., and A. N. Kaufman, *Phys. Rev.*, **32A**, 1708, 1985.
- McLean, D. J. and N. R. Labrum (eds.), *Solar Radiophysics*, Cambridge University Press, 1985.
- McNutt, R. L., jr., The magnetospheres of the outer planets, *Rev. geophys.*, supplement, 985–987, 1991; U.S. National Report to IUGG 1987-1990.
- McNutt, R. L., Jr., R. S. Selesnick, and J. D. Richardson, Low-energy plasma observations in the magnetosphere of Uranus, *J. Geophys. Res.*, **92**, 4399, 1987.
- Mellot, M. M., W. Calvert, R. L. Huff and D. A. Gurnett, DE-1 observations of ordinary mode and extraordinary mode auroral kilometric radiation, *Geophys. Res. Lett.*, **11**, 1188–1191, 1984.
- Mellot, M. M., R. L. Huff and D. A. Gurnett, The auroral kilometric radiation: DE-1 direction finding studies, *Geophys. Res. Lett.*, **12**, 479–482, 1985.
- Mellot, M. M., R. L. Huff and D. A. Gurnett, DE-1 observations of harmonic auroral kilometric radiation, *J. Geophys. Res.*, **91**, 13732–13738, 1986.
- Mel'nik V. N., Gas-dynamic theory of flight of fast electron flux in plasma, in *Proceedings of the 17th EPS Conference on Controlled Fusion and Plasma Heating*, **14B**, Part 4, 1729, Amsterdam, 1989.
- Mel'nik V. N., Properties of Type III bursts in a gas-dynamical model of spreading of electron beam in plasma, *Kinematika i physika nebecnikh tel'*, **7**, No. 3, 59, 1991 (in Russian).
- Melrose, D. B., Rotational effects on the distribution of thermal plasma in the magnetosphere of Jupiter, *Planet. Space Sci.*, **15**, 381, 1967.
- Melrose, D. B., A theory for the nonthermal radio continua in the terrestrial and Jovian magnetospheres, *J. Geophys. Res.*, **86**, 30, 1981.
- Melrose, D. B., Collective plasma radiation processes, *Annu. Rev. Astron. Astrophys.*, **29**, 31, 1991.
- Melrose, D. B., R. G. Hewitt, and G. A. Dulk, Electron-cyclotron maser emission: relative growth and damping rates for different modes and harmonics, *J. Geophys. Res.*, **89**, 897, 1984.
- Melrose D. B., and G. A. Dulk, Implication of Liouville's theorem on the apparent brightness temperatures of solar radio bursts, *Solar Phys.*, **166**, 141, 1988.
- Melrose, D. B., and G. A. Dulk, On the elliptical polarization of Jupiter's decametric radio emission, *Astron. Astrophys.*, **249**, 250–257, 1991.

- Menietti, J. D., and D. A. Gurnett, Whistler propagation in the Jovian magnetosphere, *Geophys. Res. Lett.*, **7**, 49, 1980.
- Menietti, J. D., J. L. Green, S. Gulkis, and N. F. Six, Jovian decametric arcs: An estimate of the required wave normal angles from three-dimensional ray-tracing, *J. Geophys. Res.*, **89**, 9089, 1984.
- Menietti, J. D., and D. B. Curran, Possible second harmonic gyroemission at Uranus, *J. Geophys. Res.*, **95**, 20959–20966, 1990a.
- Menietti, J. D., and D. B. Curran, Source of O-mode radio emissions from the dayside of Uranus, *J. Geophys. Res.*, **95**, 15263–15267, 1990b.
- Menietti, J. D., H. K. Wong, D. A. Wah, and C. S. Lin, Source region of the smooth high-frequency nightside Uranus kilometric radiation: A ray-tracing study, *J. Geophys. Res.*, **95**, 51–60, 1990.
- Menietti, J. D. and J. L. Burch, Particle acceleration in the auroral region as observed by DE-1, Proc. AGU Chapman Conference on Auroral Plasma Dynamics, October 21–25, 1991 in Minneapolis, MN.
- Menietti, J. D., D. Tsintikidis, D. A. Gurnett, and D. B. Curran, Modeling of whistler ray paths in the magnetosphere of Neptune, *J. Geophys. Res.*, **96**, Supplem., 19117, 1991.
- Mewaldt, R. A., E. C. Stone, and R. E. Vogt, Observations of Jovian electrons at 1 AU, *J. Geophys. Res.*, **81**, 2397, 1976.
- Meyer-Vernet, N., G. Daigne, and A. Lecacheux, Dynamic spectra of some terrestrial ionospheric effects at decametric wave lengths applications in other astrophysical contexts, *Astron. Astrophys.*, **96**, 296–301, 1981.
- Mizera, P. F., and J. F. Fennel, Signature of electric fields from high and low altitude particle distribution, *Geophys. Res. Lett.*, **4**, 311, 1977.
- Mjølhus, E., Coupling to Z mode near critical angle, *J. Plasma Phys.*, **3**, 7, 1984.
- Morgan, D. D., and D. A. Gurnett, The source location and beaming of terrestrial continuum radiation, *J. Geophys. Res.*, **96**, 9595, 1991.
- Morioka, A., H. Oya, and S. Miyatake, Terrestrial kilometric radiation observed by the satellite Jikiken, *J. Geomagn. Geoelec.*, **33**, 37, 1981.
- Morioka, A., H. Oya, and K. Kobayashi, Polarization and mode identification of auroral kilometric radiation by PWS system onboard the Akebono (EXOS-D) satellite, *J. Geomag. Geoelectr.*, **42**, 443–458, 1990.
- Moses, D., Jovian electrons at 1 AU: 1978–1984, *Astrophys. J.*, **313**, 471, 1987.
- Moses, S. L., W. S. Kurth, C. F. Kennel, F. V. Coroniti, and F. L. Scarf, Polarization of low-frequency electromagnetic radiation in the lobes of Jupiter's magnetotail, *J. Geophys. Res.*, **92**, 4701, 1987.

- Mozer, F. S., and M. Temerin, Solitary waves and double layers as the source of parallel electric fields in the auroral acceleration region, in *High-latitude Space Plasma Physics*, edited by B. Hultqvist and T. Hagfors, pp453–468, Plenum, New York, 1983.
- Murtaza, G., and P. K. Shukla, Nonlinear generation of electromagnetic waves in a magnetoplasma, *J. Plasma Phys.*, **31**, 423–436, 1984.
- Musher, S. L., A. M. Rubenchik, and B. I. Sturman, Collective effects associated with lower hybrid heating of plasma, *Plasma Phys.*, **20**, 1131, 1978.
- Nelson, G. L., and D. B. Melrose, Type II bursts, in *Solar Radiophysics*, edited by McLean and Labrum, Cambridge University Press, New York, 1985.
- Ness, N. F., The magnetic environment of the known radio planets, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 3, Austrian Academy of Sciences Press, Vienna, 1988.
- Ness, N. F., M. H. Acuña, K. W. Behannon, L. F. Burlaga, J. E. P. Connerney, R. P. Lepping, and F. M. Neubauer, Magnetic fields at Uranus, *Science*, **233**, 85–89, 1986.
- Ness, N. F., M. H. Acuña, L. F. Burlaga, J. E. P. Connerney, R. P. Lepping, and F. M. Neubauer, Magnetic fields at Neptune, *Science*, **246**, 1473, 1989.
- Ness, N. F., J. E. P. Connerney, R. P. Lepping, M. Schulz, and H. Voigt, The magnetic field and magnetosphere configuration of Uranus, in *Uranus*, ed. J. Bergstrahl, E. D. Miner and M. S. Matthews, 739–779, University of Arizona press, 1991.
- Newman, D., R. M. Winglee, and M. V. Goldman, Theory and simulation of electromagnetic beam modes and whistlers, *Phys. Fluids*, **31**, 1515, 1988.
- Okuda, H., M. Ashour-Abdalla, M. S. Chance, and W. S. Kurth, Generation of nonthermal continuum in the magnetosphere, *J. Geophys. Res.*, **87**, 10457, 1982.
- Ortega-Molina, A., and G. Daigne, Polarization response of two crossed monopoles on a spacecraft, *Astron. Astrophys.*, **130**, 301–310, 1984.
- Ortega-Molina A., and A. Lecacheux, Polarization response of the Voyager-PRA experiment at low frequencies, *Astron. Astrophys.*, **229**, 558, 1990.
- Ortega-Molina, A., and A. Lecacheux, Polarization of Jovian hectometric emission, *J. Geophys. Res.*, **96**, 11441–11453, 1991.
- Oscarsson, T., and K. Rönnmark, Reconstruction of wave distribution functions in warm plasmas, *J. Geophys. Res.*, **94**, 2417, 1989.
- Oya, H., Conversion of electrostatic waves into electromagnetic waves: Numerical calculation of the dispersion relation for all wavelengths, *Radio Sci.*, **6**, 1131, 1971.
- Oya, H., Origin of Jovian decameter wave emissions—Conversion from the electron cyclotron plasma wave to the ordinary mode electromagnetic wave, *Planet. Space Sci.*, **22**, 687–708, 1974.

- Oya, H., A. Morioka, Observational evidence of Z and L–O mode waves as the origin of auroral kilometric radiation, *J. Geophys. Res.*, **88**, 6189–6203, 1983.
- Oya, H., A. Morioka, K. Kobayashi, M. Iizima, T. Ono, H. Miyaoka, T. Okada, and T. Obara, Plasma wave observation and sounder experiments (PWS) using the Akebono (EXOS–D) satellite-instrumentation and initial results including discovery of the high altitude equatorial plasma turbulence, *J. Geomag. Geoelectr.*, **42**, 411–442, 1990.
- Papadopoulos, K., and H. P. Freund, Solitons and second harmonic radiation in type III bursts, *Geophys. Res. Lett.*, **8**, 881, 1978.
- Parker, E. N., *Interplanetary Dynamical Processes*, Interscience, New York, 1963.
- Parker, G. D., G. A. Dulk, and J. W. Warwick, Faraday effect on Jupiter’s radio bursts, *Astrophys. J.*, **157**, 439, 1969.
- Paschmann, G., G. Haerendel, I. Papamastorakis, N. Sckopke, S.J. Bame, J.T. Gosling, and C.T. Russell, Plasma and magnetic field characteristics of magnetic flux transfer events, *J. Geophys. Res.*, **87**, 2159–2168, 1982.
- Paschmann, G., I. Papamastorakis, W. Baumjohann, N. Sckopke, C. W. Carlson, B. U. Ö. Sonnerup, and H. Lühr, The magnetopause for large magnetic shear: AMPTE/IRM observations, *J. Geophys. Res.*, **91**, 11099–11115, 1986.
- Paulikas, G. A., and J. B. Blake, Modulation of trapped energetic electrons at 6.6 R_E by the direction of the interplanetary magnetic field, *Geophys. Res. Lett.*, **3**, 277, 1976.
- Paulikas, G. A., and J. B. Blake, Effects of the solar wind on magnetospheric dynamics: Energetic electrons at the synchronous orbit, in *Quantitative Modelling of Magnetospheric Processes. Geophys. Monogr. Ser.*, vol. **21**, edited by W. P. Olson, p. 180, AGU, Washington, D. C., 1979.
- Pearl, J. C., B. J. Cowrath, R. A. Hanel, J. A. Pirraglia, and A. Coustenis, The albedo, effective temperature, and energy balance of Uranus, as determined from Voyager IRIS data, *Icarus*, **84**, 12, 1990.
- Pedersen, B. M., A. Lecacheux, P. Zarka, M. G. Aubier, M. L. Kaiser, and M. D. Desch, Phenomenology of Neptune’s radio emissions observed by the Voyager planetary radio astronomy experiment, *J. Geophys. Res.*, **97**, 19201, 1992.
- Pedersen, B. M., M. G. Aubier, and M. D. Desch, Scintillations of the Uranian kilometric radiation: Implications for the downstream magnetopause, *J. Geophys. Res.*, **97**, 8127, 1992.
- Perraut, S., H. de Feraudy, A. Roux, P. M. E. Decreau, J. Paris, and L. Matson, Density measurements in key regions of the Earth’s magnetosphere: Cusp and auroral region, *J. Geophys. Res.*, **95**, 5997, 1990.
- Persoon, A. M., D. A. Gurnett, W. K. Peterson, J. H. Waite Jr, J. L. Burch, and J. L. Green, Electron density depletions in the nightside auroral zone, *J. Geophys. Res.*, **93**, 1871–1895, 1988.

- Peterson, W.K., E.G. Shelley, G. Haerendel, and G. Paschmann, Energetic ion composition in the subsolar magnetopause and boundary layer, *J. Geophys. Res.*, **87**, 2139–2145, 1982.
- Petschek, H.E., Magnetic field annihilation, *NASA Spec. Publ.*, **SP-50**, 425–439, 1964.
- Phillips, J. A., T. C. Ferree, and J. Wang, Earth-based observations of Faraday rotation in radio bursts from Jupiter, *J. Geophys. Res.*, **94**, 5457, 1989.
- Pollack, J. B., K. Rages, S. K. Pope, M. G. Tomasko, P. N. Romani, and S. K. Atreya, Nature of the stratospheric haze on Uranus: Evidence for condensed hydrocarbons, *J. Geophys. Res.*, **92**, 15037, 1987.
- Porkolab, M., Upper hybrid loss-cone instability in tandem mirror thermal barriers, *Phys. Fluids*, **27**, 162, 1984.
- Pottelette, R., M. Malingre, N. Dubouloz, B. Aparicio, R. Lundin, G. Holmgren, and G. Marklund, High frequency waves in the cusp/cleft regions, *J. Geophys. Res.*, **95**, 5957, 1990.
- Pottelette, R., R. A. Treumann, and N. Dubouloz, Generation of auroral kilometric radiation in upper hybrid wave–lower hybrid soliton interaction, *J. Geophys. Res.*, **97**, 12029, 1992.
- Pritchett, P. L., Electron–cyclotron maser instability in relativistic plasmas, *Phys. Fluids*, **29**, 2919, 1986.
- Potter, D. W., Acceleration of electrons by interplanetary shocks, *J. Geophys. Res.*, **86**, 11111, 1981.
- Priest, E.R., The magnetohydrodynamics of current sheets, *Rep. Progr. Phys.*, **48**, 955–1089, 1985.
- Pritchett, P. L., Relativistic dispersion and the generation of auroral kilometric radiation, *Geophys. Res. Lett.*, **11**, 143, 1984a.
- Pritchett, P. L., Relativistic dispersion, the cyclotron maser instability, and auroral kilometric radiation, *J. Geophys. Res.*, **89**, 8957, 1984b.
- Pritchett, P. L., Cyclotron maser radiation from a source structure localized perpendicular to the ambient magnetic field, *J. Geophys. Res.*, **91**, 13569, 1986.
- Pritchett, P. L., and R. J. Strangeway, A simulation study of kilometric radiation generation along an auroral field line, *J. Geophys. Res.*, **90**, 9650–9662, 1985.
- Pritchett, P. L., and R. M. Winglee, Generation and propagation of kilometric radiation in the auroral plasma cavity, *J. Geophys. Res.*, **94**, 129–144, 1989.
- Pudovkin, M.I. and V.S. Semenov, Magnetic field reconnection theory and the solar wind–magnetosphere interaction: A review, *Space Sci. Rev.*, **41**, 1–89, 1985.
- Rönmark, K., Emission of myriametric radiation by coalescence of upper hybrid waves with low–frequency waves, *Ann. Geophys.*, **1**, 187, 1983.

- Rönnmark, K., Generation of magnetospheric radiation by decay of Bernstein waves, *Geophys. Res. Lett.*, **12**, 639–642, 1985.
- Rönnmark, K., Myriametric radiation and the efficiency of linear mode conversion, *Geophys. Res. Lett.*, **16**, 731–734, 1989.
- Rönnmark, K., Quantitative methods for waves in space plasmas, *Space Sci. Rev.*, **54**, 1, 1990.
- Rönnmark, K., and P. J. Christiansen, Dayside electron cyclotron harmonic emissions, *Nature*, **294**, 335, 1981.
- Rönnmark, K., and J. Larsson, Local spectra and wave distribution functions, *J. Geophys. Res.*, **93**, 1809, 1988.
- Rönnmark, K., and T. Biro, Phase-space description of plasma waves. Part 2. Nonlinear theory, *J. Plasma Physics*, **47**, 479–489, 1992.
- Rabl, G. K. F., C. H. Barrow, and H. O. Rucker, Solar wind dependence of the Jovian hectometric radio emission: Comparison between Voyager 1 and 2 observations, *Astron. Astrophys.*, **232**, 242–250, 1990.
- Rabl, G. K. F., H. P. Ladreiter, H. O. Rucker, and Y. Leblanc, Source location of the Uranus smooth low-frequency emission, *Ann. Geophysicae*, **9**, 487, 1991.
- Rabl, G. K. F., H. P. Ladreiter, H. O. Rucker, and Y. Leblanc, Uranus smooth low frequency emissions, *Adv. Space Res.*, **12**, (8)117–(8)120, 1992.
- Raedler, K.-H., and N. F. Ness, The symmetry properties of planetary magnetic fields, *J. Geophys. Res.*, **95**, 2311–2318, 1990.
- Rawer, K., K. Suchy, Radio-Observations of the Ionosphere, *Handbuch der Physik*, XLIX/2, Geophysik III/2, Springer Verlag, 1967.
- Richardson, J. D., and E. C. Sittler Jr., A plasma density model for Saturn based on Voyager observations, *J. Geophys. Res.*, **95**, 12019, 1990.
- Riihimaa, J. J., Faraday rotation effects in spectral records of Jupiter's decametric radiation, *The Observatory*, **87**, 24, 1967.
- Riihimaa, J. J., Structured events in the dynamic spectra of Jupiter's decametric radio emission, *Astron. J.*, **73**, 265–270, 1968.
- Riihimaa, J. J., Modulation lanes in the dynamic spectra of Jovian L-bursts, *Astron. Astrophys.*, **4**, 180–188, 1970.
- Riihimaa, J. J., Radio spectra of Jupiter, *Technical Report S-22*, Dept. of Electrical Engineering, University of Oulu, Oulu, Finland, 1971.
- Riihimaa, J. J., Modulation lanes in the dynamic spectra of Jupiter's decametric radio emission, *Annales Academiae Scientiarum Fennicae*, **A VI**, 1–39, 1974.
- Riihimaa, J. J., Polarization patterns in the dynamic spectra of Jupiter's decametric radio bursts, *Astron. Astrophys.*, **53**, 121–129, 1976.

- Riihimaa, J. J., L-bursts in Jupiter's decametric radio spectra, *Astrophys. Space Sci.*, **56**, 503–518, 1978.
- Riihimaa, J. J., Drift rates of Jovian S-bursts, *Astron. Astrophys.*, **63**, L27–L28, 1978.
- Riihimaa, J. J., Drift rates of Jupiter's S-bursts, *Nature*, **279**, 783, 1979.
- Rijnbeek, R.P., Flux transfer events: Impulsive reconnection signatures at the Earth's magnetopause, *Ph.D. thesis*, London, 1984.
- Rijnbeek, R.P., H.K. Biernat, M.F. Heyn, V.S. Semenov, C.J. Farrugia, S.J. Southwood, G. Paschmann, N. Sckopke, and C.T. Russell, The structure of the reconnection layer observed by ISEE 1 on 8 September 1978, *Ann. Geophys.*, **7**, 297–310, 1989.
- Rinnert, K., L. J. Lanzerotti, E. P. Krider, M. A. Unran, G. Dehmel, F. O. Gliem, and W. I. Axford, Electromagnetic Noise and Radio Wave Propagation below 100 kHz in the Jovian atmosphere, 1. The equatorial region, *J. Geophys. Res.*, **84**, 5181–5188, 1974.
- Romig, J. H., D. R. Evans, C. B. Sawyer, A. E. Schweitzer, and J. W. Warwick, Models of Uranian continuum radio emission, *J. Geophys. Res.*, **92**, 15189–15198, 1987.
- Rosenberg, H., Solar radio observations and interpretations, *Phil. Trans. R. Soc. London, Ser. A.*, **281**, 461, 1976.
- Ross, W. J., Second-order effects in high-frequency transionospheric propagation, *J. Geophys. Res.*, **70**, 597, 1965.
- Rucker, H. O., and V. Mostetschnig, Interferometric observations at 16.7 and 22.2 MHz at the Observatory Lustbuehel, Graz, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 87, Austrian Academy of Sciences Press, Vienna, 1988.
- Russell, C.T., The ISEE-1 and -2 fluxgate magnetometers, *IEEE Trans. Geosci. Electron.*, **GE-16**, 239–242, 1978.
- Russell, C.T. and R.C. Elphic, Initial ISEE magnetometer results: Magnetopause observations, *Space Sci. Rev.*, **22**, 681–715, 1978.
- Ryabov, B. P., Decametric radio emission of Jupiter. II. Localization of S-component sources, *Astron. Vestnik*, **20**, No.1, 20, 1986 (in Russian).
- Ryabov, B. P., Decametric radio emission of Jupiter. V. A model of the S-burst source, *Preprint of Ukr. Acad. of Sci., Inst. Radio Astron.*, **No.9**, Kharkov, USSR, 1987.
- Ryabov, B. P., Decametric radio emission of Jupiter. III. Some physical characteristics of the S-burst sources, *Astron. Vestnik*, **24**, No.2, 103, 1990a (in Russian).
- Ryabov, B. P., Radiation pattern of the S-component in the decametric radio emission of Jupiter, *Astron. Vestnik*, **24**, No.3, 221, 1990b (in Russian).
- Ryabov, B. P., A. V. Arkhipov, and V. A. Shevchenko, Decametric radio emission of Jupiter. I. The morphology of S-burst storms, *Astron. Vestnik*, **19**, No.4, 296, 1985 (in Russian).

- Ryabov, B. P. and N. N. Gerassimova, Sporadic radio emission of Jupiter at decameter wavelength, *Naukova Dumka*, Kiev, USSR, 1990 (in Russian).
- Sandel, B. R., D. E. Shemansky, A. L. Broadfoot, J. B. Holberg, G. R. Smith, J. C. McConnell, D. F. Strobel, S. K. Atreya, T. M. Donahue, H. W. Moos, D. M. Hunten, R. B. Pomphrey, and S. Linick, Extreme ultraviolet observations from the Voyager 2 encounter with Saturn, *Science*, **215**, 548, 1982.
- Sawyer, C. B., J. W. Warwick, and J. H. Romig, Smooth radio emission and a new emission at Neptune, *Geophys. Res. Lett.*, **17**, 1645, 1990.
- Sawyer, C. B., K. L. Neal, and J. W. Warwick, Polarization model applied to Uranian radio emission, *J. Geophys. Res.*, **96**, 5575, 1991.
- Scarf, F. L., and D. A. Gurnett, A plasma wave investigation for the Voyager mission, *Space Sci. Rev.*, **21**, 289–308, 1977.
- Scarf, F. L., D. A. Gurnett, and W. S. Kurth, Jupiter plasma wave observations: An initial Voyager 1 overview, *Science*, **204**, 991, 1979.
- Scarf, F. L., D. A. Gurnett, W. S. Kurth, R. R. Anderson, and R. R. Shaw, An upper bound to the lightning flash rate in Jupiter's atmosphere, *Science*, **213**, 684, 1981.
- Scarf, F. L., D. A. Gurnett, W. S. Kurth, F. V. Coroniti, C. F. Kennel, and R. L. Poynter, Plasma wave measurements in the magnetosphere of Uranus, *J. Geophys. Res.*, **92**, 15217, 1987.
- Schneider, N. M., J. T. Trauger, J. K. Wilson, D. I. Brown, R. W. Evans, and D. E. Shemansky, Molecular origin of Jupiter's fast Sodium, *Science*, **253**, 1394–1397, 1991.
- Schulz, M., Evidence for energy equipartition in Neptune's magnetic dynamo, *Geophys. Res. Letters*, (not published), 1992.
- Schulz, M., and G. A. Paulikas, Planetary magnetic fields: A comparative view, *Adv. Space Res.*, **10**(1), 55–64, 1990.
- Schweitzer, A. E., J. H. Romig, D. R. Evans, C. B. Sawyer, and J. W. Warwick, Offset, tilted dipole models of Uranian smooth high-frequency radio emission, *J. Geophys. Res.*, **95**, 14977–14986, 1990.
- Semenov, V.S., I.V. Kubyshkin, M.F. Heyn, and H.K. Biernat, Field-line reconnection in the two-dimensional asymmetric case, *J. Plasma Phys.*, **30**, 321–344, 1983.
- Semenov, V.S., I.V. Kubyshkin, V.V. Lebedeva, M.V. Sidneva, H.K. Biernat, M.F. Heyn, B.P. Besser, and R.P. Rijnbeek, Time-dependent localized reconnection of skewed magnetic fields, *J. Geophys. Res.*, **97**, 4251, 1992.
- Shawhan, S. D., and D. A. Gurnett, Polarization measurements of auroral kilometric radiation by Dynamics Explorer-1, *Geophys. Res. Lett.*, **9**, 913–916, 1982.
- Sittler, E. C., Jr., K. W. Ogilvie, and R. Selesnick, Survey of electrons in the Uranian magnetosphere: Voyager 2 observations, *J. Geophys. Res.*, **92**, 15263, 1987.

- Slee, O.B., and C.S. Higgins, The solar wind and Jovian decameter radio emission, *Austral. J. Phys.*, **21**, 341, 1968.
- Slottje, C., Atlas of Fine Structures of Dynamic Spectra of Solar Type IV–dm and Some Type II Radio Bursts, *Publ. of the Netherlands Foundation for Radio Astronomy*, 1981.
- Smirnow, W. I., *Lehrgang der höheren Mathematik*, Bd. 4, Teil III/2, VEB Deutscher Verlag der Wissenschaften, Berlin, 1987.
- Smith, B. A., L. A. Soderblom, T. U. Johnson, A. P. Ingersoll, S. A. Collins, E. M. Shoemaker, G. E. Hunt, H. Masursky, M. H. Carr, M. E. Davies, A. F. Cook (II), J. Boyce, G. E. Danielson, T. Owen, C. Sagan, R. F. Beebe, J. Veverka, R. G. Strom, J. F. McCauley, D. Morrison, G. A. Briggs, V. E. Suomi, The Jupiter system through the eyes of Voyager 1, *Science*, **204**, 948–972, 1979a.
- Smith, B. A., L. A. Soderblom, R. Beebe, J. Boyce, G. Briggs, M. Carr, S. A. Collins, A. F. Cook II, G. E. Danielson, M. E. Davies, G. E. Hunt, A. Ingersoll, T. V. Johnson, H. Masursky, J. McCauley, D. Morrison, T. Owen, C. Sagan, E. M. Shoemaker, R. Strom, V. E. Suomi, and J. Ververka, The Galilean satellites and Jupiter: Voyager 2 imaging science results, *Science*, **206**, 927, 1979b.
- Smith, B. A., L. Soderblom, R. Beebe, J. Boyce, G. Briggs, A. Bunker, S. A. Collins, C. J. Jansen, T. V. Johnson, J. L. Mitchell, R. J. Terrile, M. Carr, A. F. Cook II, J. Cuzzi, J. B. Pollack, G. E. Danielson, A. Ingersoll, M. E. Davies, G. E. Hunt, H. Masursky, E. Shoemaker, D. Morrison, T. Owen, C. Sagan, J. Ververka, R. Strom, and V. E. Suomi, Encounter with Saturn: Voyager 1 imaging science results, *Science*, **212**, 163–191, 1981.
- Smith, B. A., L. Soderblom, R. Batson, P. Bridges, J. Inge, H. Masursky, E. Shoemaker, R. Beebe, J. Boyce, G. Briggs, A. Bunker, S. A. Collins, C. J. Hansen, T. V. Johnson, J. L. Mitchell, R. J. Terrile, A. F. Cook II, J. Cuzzi, J. B. Pollack, G. E. Danielson, A. P. Ingersoll, M. E. Davies, G. E. Hunt, D. Morrison, T. Owen, C. Sagan, J. Ververka, R. Strom, and V. E. Suomi, A new look at the Saturn system: The Voyager 2 images, *Science*, **215**, 504–537, 1982.
- Smith, B. A., L. A. Soderblom, D. Banfield, C. Barnet, A. T. Basilevsky, R. F. Beebe, K. Bollinger, J. M. Boyce, A. Brahic, G. A. Briggs, R. H. Brown, C. Chyba, S. A. Collins, T. Colvin, A. F. Cook II, D. Crisp, S. K. Croft, D. Cruikshank, J. N. Cuzzi, G. E. Danielson, M. E. Davies, E. De Jong, L. Dones, D. Godfrey, J. Goguen, I. Grenier, V. R. Haemmerle, H. Hammel, C. J. Hansen, C. P. Helfenstein, C. Howell, G. E. Hunt, A. P. Ingersoll, T. V. Johnson, J. Kargl, R. Kirk, D. I. Kuehn, S. Limage, H. Masursky, A. McEwen, D. Morrison, T. Owen, W. Owen, J. B. Pollack, C. C. Porco, K. Rages, P. Rogers, D. Rudy, C. Sagan, J. Schwartz, E. M. Shoemaker, M. Showalter, B. Sicardy, D. Simonelli, J. Spencer, L. A. Sromovsky, C. Stoker, R. G. Strom, V. E. Suomi, S. P. Synott, R. J. Terrile, P. Thomas, W. R. Thompson, A. Verbiscer, J. Veverka, Voyager 2 at Neptune: Imaging science results, *Science*, **246**, 1422, 1989.
- Sonnerup, B.U.Ö., G. Paschmann, I. Papamastorakis, N. Schopke, G. Haerendel, S.J.

- Bame, J.R. Asbridge, J.T. Gosling and C.T. Russell, Evidence for magnetic field reconnection at the Earth's magnetopause, *J. Geophys. Res.*, **86**, 10009–10067, 1981.
- Stenflo, L., Comments on stimulated scattering of electromagnetic waves by electron Bernstein modes in a plasma, *Phys. Rev. A*, **23**, 2730–2731, 1981.
- Stenflo, L. and P. K. Shukla, Generation of radiation by upper-hybrid waves in nonuniform plasmas, *Planet. Space Sci.*, **40**, 473, 1992.
- Stix, T. H., *The Theory of Plasma Waves*, McGraw-Hill, New York, 1962.
- Stone, R. G., J. Caldwell, Y. de Conchy, C. Deschanciaux, R. Ebbett, et al., The ISPM Unified Radio and Plasma wave experiment, *ESA Special Publication* SP-1050, July 1983.
- Stone, R. G., J. L. Bougeret, J. Caldwell, P. Canu, Y. de Conchy, N. Cornilleau-Wehrin, M. D. Desch, J. Fainberg, K. Goetz, M. L. Goldstein, C. C. Harvey, S. Hoang, R. Howard, M. L. Kaiser, P. J. Kellog, B. Klein, R. Knoll, A. Lecacheux, D. Lengyel-Frey, R. J. MacDowall, R. Manning, C. A. Meetre, A. Meyer, N. Monge, S. Monson, G. Nicol, M. J. Reiner, J. L. Steinberg, E. Torres, C. de Villedary, F. Wouters, and P. Zarka, The unified radio and plasma wave investigation, *Astron. Astrophys. Suppl. Ser.*, **92**, 291, 1992.
- Stone, R. G., J. Caldwell, J. L. Bougeret, P. Canu, N. Cornilleau-Wehrin, K. Goertz, C. C. Harvey, S. Hoang, M. L. Kaiser, P. J. Kellog, C. A. Meetre, B. Klein, D. Lengyel-Frey, M. L. Reiner, J. L. Steinberg et al., The unified radio and plasma wave experiment, *Astron. & Astrophys. Suppl.*, **92**, 291, 1992.
- Storey, L. R. O., and F. Lefeuvre, Theory for the interpretation of measurements of the six components of a random electromagnetic wave field in space, *Space Res.*, **XIV**, 381, 1974.
- Straka, R. M., C. L. Bennet, D. Gaunt, *Faraday rotation measurements of decameter wavelength radiation from the planet Jupiter in Electron Density Profiles in the Ionosphere and Exosphere*, edited by J. Frihagen, 1965.
- Strangeway, R. J., Wave dispersion and ray propagation in a weakly relativistic electron plasma: Implications for the generation of auroral kilometric radiation, *J. Geophys. Res.*, **90**, 9675–9687, 1985.
- Strangeway, R. J., On the applicability of relativistic dispersion to auroral zone electron distributions, *J. Geophys. Res.*, **91**, 3152, 1986.
- Sturman, B. I., Plasma turbulence near the lower-hybrid resonance, *Sov. Phys. JETP*, **44**: 322, 1976 (*Zh. Eksp. Teor. Fiz.*, **71**, 613, 1976).
- Taylor, W. L., Radiation field characteristics of lightning discharges in the band 1 kHz–100 kHz, *J. Res. Nat. Bur. Stand.* **67D**, 539, 1963.
- Teegarden, B. F., F. B. McDonald, J. H. Trainor, W. R. Webber, and E. C. Roelof, Interplanetary MeV electrons of Jovian origin, *J. Geophys. Res.*, **79**, 3615, 1974.

- Temerin, M., Electron density and whistler mode propagation characteristics at 7000 km altitude in the auroral zone and polar cap, *J. Geophys. Res.*, **89**, 3945, 1984.
- Temerin, M., C. A. Catell, R. Lysak, M. Hudson, R. B. Torbert, F. S. Mozer, R. D. Sharp, and P. M. Kintner, The small-scale structure of electrostatic shocks, *J. Geophys. Res.*, **86**, 11278, 1981.
- Tidman, D., and N. A. Krall, *Shock Waves in Collisionless Plasmas*, Wiley-Interscience, New York, 1971.
- Titheridge, J. E., Determination of ionospheric electron content from the Faraday rotation of geostationary satellite signals, *Planet. Space Sci.*, **20**, 353–369, 1972.
- Tokar, R. L., D. A. Gurnett, F. Bagenal, and R. R. Shaw, Light ion concentrations in Jupiter's inner magnetosphere, *J. Geophys. Res.*, **87**, 2241, 1982.
- Treumann, R. A., Intensification of radiation from collapsing solitons in solar type I bursts, *unpublished manuscript*, 1982.
- Treumann, R. A., and T. E. X. Bernold, Radiation from a whistler soliton in interaction with a plasma wave, *Phys. Rev. Lett.* **47**, 1455, 1981.
- Treumann, R. A., O. H. Bauer, J. LaBelle, G. Haerendel, P. J. Christiansen, A. G. Darbyshire, A. J. Norris, L. J. C. Wolliscroft, R. R. Anderson, D. A. Gurnett, R. W. Holzcroft, H. C. Koons, and J. Roeder, Electron plasma waves in the solar wind: Ampte/Irm and UKS observations, *Adv. Space Res.*, **6**, 93, 1986.
- Treumann, R. A., M. Güdel, and A. O. Benz, Alfvén wave solitons and solar intermediate drift bursts, *Astron. Astrophys.*, **236**, 242, 1990.
- Tyler, G. L., V. R. Eshleman, J. D. Anderson, G. S. Levy, G. F. Lindal, G. E. Wood, and T. A. Croft, Radio science with Voyager 2 at Saturn: Atmosphere and ionosphere and the masses of Mimas, Tethys, and Iapetus, *Science*, **215**, 553, 1982.
- Ungstrup, E., A. Bahnsen, H. K. Wong, M. André, and L. Matson, Energy source and generation mechanism for auroral kilometric radiation, *J. Geophys. Res.*, **95**, 5973, 1990.
- Urrutia, J. M. and R. L. Stenzel, New electromagnetic mode in a non-Maxwellian high-beta plasma, *Phys. Rev. Lett.*, **53**, 1901, 1984.
- Vasyliunas, V.M., Theoretical models of magnetic field line merging, 1, *Rev. Geophys. Space Phys.*, **13**, 303–336, 1975.
- Vasyliunas, V.M., Steady state aspects of magnetic field line merging, in *Magnetic Reconnection in Space and Laboratory Plasmas*, edited by E.W. Hones, Jr., 25–31, American Geophysical Union, Washington, D.C., 1984.
- Voigt, G.-H., and N. F. Ness, The magnetosphere of Neptune: Its response to daily rotation, *Geophys. Res. Lett.*, **17**, 1705–8, 1990.
- Voots, G. R., D. A. Gurnett, and S. -I. Akasofu, Auroral kilometric radiation as an indicator of auroral magnetic disturbances, *J. Geophys. Res.*, **82**, 2259–2266, 1977.

- Wang, W. X., Equipotential transformation from multipole systems to dipole systems, *Proc. Roy. Soc. Lond.*, **A 414**, 359–369, 1987.
- Warwick, J. W., and G. A. Dulk, Faraday rotation on decametric radio emission from Jupiter, *Science*, **145**, 380, 1964.
- Warwick, J. W., J. B. Pearce, R. G. Peltzer, and A. C. Riddle, Planetary radio astronomy experiment for Voyager missions, *Space Sci. Rev.*, **21**, 309–327, 1977.
- Warwick, J. W., J. B. Pearce, A. C. Riddle, J. K. Alexander, M. D. Desch, M. L. Kaiser, J. R. Thieman, T. D. Carr, S. Gulkis, A. Boischot, C. C. Harvey, and B. M. Pedersen, Voyager 1 planetary radio astronomy observations near Jupiter, *Science*, **204**, 995–998, 1979.
- Warwick, J. W., J. B. Pearce, D. R. Evans, T. D. Carr, J. J. Schauble, J. K. Alexander, M. L. Kaiser, M. D. Desch, B. M. Pedersen, A. Lecacheux, G. Daigne, A. Boischot, and C. H. Barrow, Planetary Radio Astronomy observations from Voyager 1 near Saturn, *Science*, **212**, 239–243, 1981.
- Warwick, J. W., J. H. Romig, and D. R. Evans, Saturn electrostatic discharges, *IAU Colloquium No. 75, Planetary Rings*, A. Brahic (Ed.), 1982.
- Warwick, J. W., D. R. Evans, J. H. Romig, C. B. Sawyer, M. D. Desch, M. L. Kaiser, J. K. Alexander, T. D. Carr, D. H. Staelin, S. Gulkis, R. L. Poynter, M. Aubier, A. Boischot, Y. Leblanc, A. Lecacheux, B. M. Pedersen, and P. Zarka, Voyager 2 radio observations of Uranus, *Science*, **233**, 102–106, 1986.
- Warwick, J. W., D. R. Evans, and P. B. Dusenbery, Waves on the Uranian downstream magnetopause, *J. Geophys. Res.*, **92**, 15367–15375, 1987.
- Warwick, J. W., D. R. Evans, G. R. Peltzer, R. G. Peltzer, J. H. Romig, C. B. Sawyer, A. C. Riddle, A. E. Schweitzer, M. D. Desch, M. L. Kaiser, W. M. Farrell, J. K. Alexander, T. D. Carr, I. de Pater, D. H. Staelin, S. Gulkis, R. L. Poynter, A. Boischot, F. Genova, Y. Leblanc, A. Lecacheux, B. M. Pedersen, and P. Zarka, Voyager planetary radio astronomy at Neptune, *Science*, **246**, 1498, 1989.
- Weidenschilling, S. J. and J. S. Lewis, Atmospheric and cloud structures in the Jovian planets, *Icarus*, **20**, 465, 1973.
- Weitzner, H., Linear wave propagation in ideal magnetohydrodynamics, in *Handbook of Plasma Physics*, Vol. 1, edited by A.A. Galeev and R.N. Sudan, 201–242, 1983.
- White, S. M., D. B. Melrose and G. A. Dulk, Electron cyclotron masers during solar flares, *Astrophys. J.*, **308**, 424, 1986.
- Wild, J. P., and L. L. McCready, Observations of the spectrum of high-intensity solar radiation at meter wavelengths - I. The apparatus and spectral types of solar bursts observed, *Austr. J. Sci. Res., Ser. A*, **3**, 387, 1950.
- Wilken, B., A. Korth, and E. Keppler, Das MPAE-Elektron/Protonen-Spektrometer (EPI) auf dem ESA-Satelliten GEOS (S-321) *Z. Flugwiss. Weltraumforsch.*, **1**, 298, 1977.

- Williams, M. A., On the energy of possible Saturnian lightning, private communication, 1983.
- Williams, M. A., An analysis of the Voyager images of Jovian lightning, *PhD thesis*, Univ. of Arizona, 1986.
- Williams, M. A., E. P. Krider, and D. M. Hunten, Planetary lightning: Earth, Jupiter, and Venus, *Rev. Geophys.*, **21**, 892, 1983.
- Winglee, R. M., Interrelation between azimuthal bunching and semi relativistic maser cyclotron instability, *Plasma Phys.*, **27**, 207, 1983.
- Winglee, R. M., Effects of finite plasma temperature on electron cyclotron maser emissions, *Astrophys. J.*, **291**, 160, 1985.
- Winglee, R. M. and G. A. Dulk, The electron-cyclotron maser instability as the source of solar type V continuum, *Astrophys. J.*, **310**, 432, 1986.
- Wong, H. K., C. S. Wu, F. J. Ke, R. S. Schneider, and L. F. Ziebell, Electromagnetic cyclotron-loss-cone instability associated with weakly relativistic electrons, *J. Plasma Phys.*, **28**, 503, 1982.
- Wong, H. K., and M. L. Goldstein, A mechanism for bursty radio emission in planetary magnetospheres, *Geophys. Res. Lett.*, **17**, 2229–2232, 1990.
- Wu, C. S., A fast Fermi process: Energetic electrons accelerated by a nearly perpendicular bow shock, *J. Geophys. Res.*, **89**, 8857–8862, 1984.
- Wu, C. S., Kinetic cyclotron and synchrotron maser instabilities: Radio emission processes by direct amplification of radiation, *Space Sci. Rev.*, **41**, 215–298, 1985.
- Wu, C. S., and L. C. Lee, A theory of the terrestrial kilometric radiation, *Astrophys. J.*, **230**, 621–626, 1979.
- Wu, C. S., C. S. Lin, H. K. Wong, S. I. Tsai, and R. L. Zhou, Absorption and emission of extraordinary mode electromagnetic waves near cyclotron frequency in non equilibrium plasmas, *Phys. Fluids*, **24**, 2191, 1981.
- Wu, C. S., H. K. Wong, and L. C. Lee, Generation of the auroral kilometric radiation, *J. Geophys. Res.*, **87**, 4476, 1982.
- Wu, C. S., and H. P. Freund, A kinetic cyclotron maser instability associated with a hollow beam of electrons, *Radio Sci.*, **19**, 519–525, 1984.
- Wu, C. S., G. C. Zhou, and J. D. Gaffey (Jr.), Induced emission of radiation near $2\omega_e$ by a synchrotron-maser instability, *Phys. Fluids*, **28**, 1985.
- Wu, C. S., P. H. Yoon, and H. P. Freund, A theory of electron cyclotron waves generated along auroral field lines observed by ground facilities, *Geophys. Res. Lett.*, **16**, 1461, 1990.
- Yoon, P. H., Amplification of a high-frequency electromagnetic wave by a relativistic plasma, *Phys. Fluids B*, **2**, 867, 1990a.

- Yoon, P. H., The effect of background temperature on the synchrotron maser process, *Phys. Fluids B*, **2**, 1662, 1990b.
- Yoon, P. H., and D. Krauss-Varban, Gyroharmonic maser instability for weakly relativistic electrons with a loss-cone distribution, *Phys. Fluids B*, **2**, 1918, 1990.
- Young, T. S. T., J. D. Callen, and J. E. McCune, High-frequency electrostatic waves in the magnetosphere, *J. Geophys. Res.*, **78**, 1082, 1973.
- Yu, M. Y., P. K. Shukla, and A. El-Nadi, Linear and nonlinear instabilities of the electron convection mode, *Phys. Rev. A*, **32**, 613–616, 1985.
- Yung, Y. L., M. Allen, and J. P. Pinto, Photochemistry of the atmosphere of Titan: Comparison between model and observation, *Astrophys. J. Suppl. Ser.*, **55**, 465, 1984.
- Zaitsev, V. V., E. Y. Zlotnik, and V. E. Shaposhnikov, The origin of S-bursts in Jupiter's decametric radio spectra, *Astron. Astrophys.*, **169**, 345, 1986.
- Zarka, P., On the detection of radio bursts associated with Jovian and Saturnian lightnings, *Astron. and Astrophys.*, **146**, L15, 1985.
- Zarka, P., Beaming of Planetary Radio Emissions, in *Planetary Radio Emissions II*, edited by H. O. Rucker, S. J. Bauer, and B. M. Pedersen, p. 327, Austrian Academy of Sciences Press, Vienna, 1988.
- Zarka, P., The Auroral Radio Emissions from Planetary Magnetospheres, what do we know, what don't we know, what do we learn from them ?, *Adv. Space Res.*, **12**, (8)99, 1992.
- Zarka, P., and F. Genova, Low frequency Jovian emission and solar wind magnetic sector structure, *Nature*, **306**, 767–768, 1983.
- Zarka, P., D. Le Quéau, and F. Genova, The maser synchrotron instability in an inhomogeneous medium: Determination of the spectral intensity of auroral kilometric radiation, *J. Geophys. Res.*, **91**, 13542, 1986.
- Zarka, P., and B. M. Pedersen, Radio detection of Uranian lightning by Voyager 2, *Nature*, **323**, 605–608, 1986.
- Zarka, P., and A. Lecacheux, Beaming of Uranian nightside kilometric radio emission and inferred source location, *J. Geophys. Res.*, **92**, 15177–15188, 1987.
- Zheleznyakov, V. V., *Radio emission of the Sun and planets*, Pergamon Press, New York, 1970.
- Zheleznyakov, V. V., and V. E. Shaposhnikov, Origin of 'modulation lines' in the dynamic spectrum of Jovian decameter radio emission, *Sov. Astron.*, **23**(5), 588–595, 1979.
- Ziebell, L. F., C. S. Wu, and P. H. Yoon, Kilometric radio waves generated along auroral field lines observed by ground facilities: A theoretical model, *J. Geophys. Res.*, **96**, 1495, 1991.