

Heliobiologie

1. Vasil'yeva G.Ya.,Kuznetsov D.A., Shpitalnaya A.A. On the question of galactic factors' influence upon Solar activity. "Solar Data", 1972, , N9, p. 99- 106 (in Russian).
2. Kurt V. G. Interstellar medium and it's interaction with stars. Zemlya i Vselennaya (Earth and Universe), 1994,N5, p.3-10. (in Russian).
3. Parker E.. Space magnetic fields (their formation and manifestations). 2-, 1982, 469'.
4. Zakoldaev Yu.A., Shpitalnaya A.A., Efimov A.A. Cyclic pattern and evolution of geology processes as a consequence of Sun's circulation in anisotropy interstellar space. // New ideas in interaction of sciences on Earth and Universe (Internat. conference transactions). Sanct-Peterburg., 1996. - p. 23-24.
5. Kruzhevskii B.M.,Petrov V.M, Shestopalov I P. On radiation conditions forecasting in interstellar space. / Kosmicheskiye Issledovaniya (Space research), v. 31, no. 6, - 1993. - p. 89-103.
6. Dmitriev A.N. Mahatmas and the Science of new quality of Solar System. Tomsk. Human Sciences Institute, "Natural Sciences" series, 1995.
7. Science News, 1994. 144. 334.
8. Science News, 1955. vol. 148, N 21.
9. Dolginov Sh.Sh. Magnetic fields of Uranus and Neptune : a look from the Earth. // Geomagnetism and aeronomy.33, N 2, 1993. 1-22.
10. New Scientist, 1994. 144. 18.
11. Space flight. - 1992, v. 34, N 3, p. 75.
12. Fortov V.E., Gnedin Yu.I.,Ivanov A.V., Ivlev A.V., Klumov B.A. The collision of Shoemaker-Levy comet with Jupiter / Sov.Phys.Uspehi, v. 166, N 4, - 1996. - p. 391-422.
13. Churyumov K.I.. Once more about comet's collision with Jupiter.- Zemlya i Vselennaya (Earth and Universe) - 1994, No.1. - p. 83-85.
14. Dmitriev A.N. Earth responses to high-energy processes in Jovian system // Novosibirsk, IICA Transactions, vol. 1, 1994. - p. 16-21.
15. Haynes P.L., Balogh A., Douoherty H.K., et. Null fields in the outer Jovian magnetosphere: Ulysses observations // Geophys. Res. Zett. - 1994, - 21, N 6. - p. 405-408.
16. Wireless File, 24,3. - 1995.
17. "Popular Science", N 4, 1995.

18. Shestopalov I.P., Bengin V.V., Kolesov G.Ya. et al.. SCR Flashes and large-scale structures in interplanetary environment. A forecast of proton Solar events. / Space Research. v. 30. - Moscow: Nauka publishers., publ#6, 1992. p.816-825.
19. Ishkov V.N. Solar activity in 1991-1992 . (22-th cycle) Astronomy calendar for 1994 . - Moscow:1993, p. 190-197.
20. Ishkov V.N. 22-th cycle of Solar Activity : main characteristics and evolution / Astronomy calendar for 1993 . - Moscow:1992, p.215-229.
21. preliminary Report and Forecast of Solar-Geophysical Date / Space Environment Services Center, Boulder, Colorado USA: 1992, N 2.
22. Crocker N.U. Geoeffective space storms: Abstr. Spring Meet. Baltimore, Md, May 23-28, 1994 // EDS. - 1994. - 75, N 16, Suppl. - p. 312-313.
23. Ivanov K.G. The Earth magnetosphere/Electromagnetic and plasma processes from Sun to Earth core . - Moscow: Nauka publishers,1989. - p. 62-75.
24. Kovalevskii I.V. Some aspects of Solar-Terrestrial interactions energetics/ Interplanetary Environment and Earth Magnetosphere - Moscow: Nauka publishers, 1982. - p. 25-63.
25. The Van-Helen radiation belts - two newly observed populations: Abstr. Spring Meet. Baltimore. Md. May 23-28, 1994 / Blake J.R. // EOS. - 1994. -75. N 16.
26. Drobzhev V.I., Kazakov V.V. , Chepurchenko L.V. Foundations of external helio- and geo- physical control of seismicity./ Vestnik of Kazakh SSR Acad. of Sci. , No. 3, - 1988. - p. 12-18.
27. Sytinsky A.D. On geoeffectivity of Solar wind streams.USSR Acad.Sci. Doklady, 1988, v. 298, N 6. - p. 1355-1357.
28. Solar cycles and Solar output: Abstr. AGU Fol Meet. San Francisco Calif. Dec. 7-11, 1992 / McIntosh P.S. // EOS. - 1992 - 73, N 43. Suppl. - p. 436.
29. "Geophysical Research Letters". vol. 21, 1994.
30. Mogilevsky E.I. Sun coronal holes energy and recurrent geomagnetic distributions . // Geomagnetism and aeronomy. 1995,. 35, N 6. - 11-19.
31. Kazimirovsky E.S., Kokourov V.D. Meteorology effects in ionosphere(a survey) // Geomagnetism and aeronomy. 1995,.35, N 3. - . 3-23.
32. New Scientist. 1995.- 147. 11.
33. Dmitriev A.N. Technogeneous impact upon Geospace (the problems of global ecology). - Novosibirsk, Novosibirsk State University, 1993. - p. 68.

34. Zanetti J., Potoma A., Anderson B. J. et set. Correlation's of satellite observed auroral currents induced in a power generating system: Abstr. AGU West. Pacif. Geophys. Meet., Hong-Kong, July 25-29, 1994.
35. Space Rays physics: the research continues in SNG. Russian Acad.Sci. Vestnik, v. 63, N 7, 1993. - p. 650-654.
36. Nesmenovich E.I. Resonance's in Solar System // Space physics problems. Kiev, 1984, N 19. - p. 84-93.
37. Rodionov B.U. Possible geophysics manifestations of magnetic monopoles. Preprint of Moscow Eng.Phys.Institute - 1995 - N 021 - 95. - p.1-24.
38. Sumaruk Yu.P., Sumaruk P.V. Secular variations of geomagnetic field in middle latitudes and their relation to geomagnetic and solar activity. / Geophysics Journal N 6, 1995, - v. 17. - p. 59-62.
39. Zhidkov M.P., Lihacheva N.A. Anomalous field influence upon placement and growth of cities. / Russian Acad. Sci. Izvestiya, geography series. N 1, 1996. - p. 71-84.
40. Fedorova N.V. The research of long-wave large-scale anomalies above northern Eurasia / Doklady RAN, 1996, vol 347, N 5, p. 681-684.
41. Kopytenko A.Yu., Pochtarev V.I. On dynamics of Earth magnetic poles./Geomagnetism and aeronomy.. v. 32, 1992, N 5 - p. 201-202.
42. Kuznetsov V.V. The position of North magnetic pole in 1994 (forecast and detection) /Doklady RAN, 1996, vol 348, No.3, p.397-399.
43. Milanovsky E.E. On phase correlation of geomagnetic field inversions frequencing, World ocean level decrease and Earth crust folding deformations strengthening phases in Mesozoic and Cainozoic. / Geotectonics, 1996, N 1. - p. 3-11.
44. Ryskunov A.L. The comparison of large scale characteristics of gephysic fields./ USSR Acad.Sci. Doklady, v. 267, N 6, 1982. - p. 1336-1340.
45. Kondratyev K.Ya. Modern stage of research of global change: US program //Investigation of Earth from space N 2, 1995. - p. 98-105.
46. Wilson N. Global temperatures approach record values // J. Meteorol. - 1995. - 20, N 200. - p. 194-196.
47. "Science News", 1994.146.13.
48. New Scientist, 1995. 146. 18.
49. "Geophysical Research Letters", 1994, v. 21.
50. "New Scientist", 1995, vol. 145, N 1962.
51. New Scientist, 1995, vol. 145, N 1967.

52. Natreba S.N. On relation of short-periodic thermodynamic pulsation's of atmosphere boundary layer with Solar X-Ray emission.// Meteorology and hydrology, N 4, - 1996. - p. 95-101.
53. New Scientist, 1995, vol. 147, N 1993.
54. Dmitriev A.N. Belyaev G.K. Technogeneuous causes of total ozone content decrease. (USSR Ac.Sci. Siberian Branch Institute of Geology and Geophysics preprint No. 15) Novosibirsk, 1991.
55. Claude H., Schnenborn F., Stethbrecht W. New evidence for ozone depletion in the upper stratosphere // Geophys. Res. Lett. - 1994. - 21, N 22. - p. 2409-2412.
56. Wemberg P.O., Hanisco T.F., Stimpl R.M., Japson L.B., Anderson J.G. In situ measurements of andin the upper troposphere and stratosphere // J. Athmos. Sci. - 1995, - 52, N 19. - p. 1413-1420.
57. Karol' M.L. , Klyatina L.P. , Romashkina K.I., Shalaminskii A.M. Extremely low ozone content above Russia in 1995 winter . // Meteorology and hydrology, N 6, - 1995. - p. 115-116.
58. Vozhkov R.D., Fioletov V.E., Kadygrova T.V. et al. Ozone decrease estimate for Eurasia in 1973-1993 on a base of filter ozonometer registrations correlated data. // Meteorology and hydrology, N 9, - 1995. - p.30-40.
59. "Global Change Newsletter", 1994, N 19.
60. Science News. vol. 148. N 25, 1995.
61. Science News. vol. 146. N 334, 1994.
62. Tsirs G.P., Loginov G.A. The characteristics of weekly moves of geomagnetic oscillations 1985, v. 25, N 2. - p. 153-154.
63. Biryukov A.S., Grigoryan S.R., Garkusha V.I. et al. Low frequency radiation sources. Their action upon Earth radiation belts.(a survey) - Moscow: VINITI # 5204-88, 1988. - 1236.
64. Plasma generation in energy active zones./ Dmitriev A.N., Poholkov Yu.P., Protasyevic' E.T., Skavinskii V.P. / USSR Ac.Sci. Siberian Branch Institute of Geology and Geophysics- Novosibirsk, 1992.
65. Non-periodic transient phenomena in environment: II interdisciplinary workshop transactions-Tomsk, Tomsk Polytech.Inst.,1990.
66. Dmitriev A.N. Correcting dfunction of heliocentered unusual atmospheric phenomena./ Izvestiya Vis'shih Uch.Zaved.,Physics,Tomsk, v.35, 1992, N 3, p. 105-110.
67. Dmitriev A.N., Dyatlov V.L. A model of non-homogeneous physical vacuum and natural self-luminous formations. /IICA Transactions Novosibirsk, 1996, v.3 - p. 65-76.

68. Environment monitoring and problems of solar-terrestrial physics. / Theses of international symposium June 18-21 1996 - Tomsk, Tomsk Univ., Sib.Phys.-Tech.Inst. , 1996.
69. Natek K. The necessity of future politicians learning global relations between natural processes and antropogeneous activity. // Global Changes and Geogr.: IGU Conf. Moscow. Aug. 14-18, 1995: Abstr. - Moscow, 1995, - 251.
70. Kondratyev K.Ya. Global change and Demography dynamics.Rus.Acad.Sc.Vestnik, 1996, v. 66, N 4. - p. 364-375.
71. Dmitriev A.N.. Tecnogeneous challenge to the planet Earth. / Vestnik Vys'shei Shkoly, 1989, N 7. - p. 38-44.
72. Kosygin Yu.A.. The highway of synthesis. / Pacific Geology, 1995, v. 14, N 6. - p. 8-15.
- END REFERENCES

Geobiologie

- Syutkina E.V., Comelissen G., Halberg F., Grigoriev A.E., Abramian A.S., Yatsyk G.V., Morozova N.A., Ivanov A.P., Shevchenko P.V., Polyakov Y.A., Bunin A.T., Safin S.R., Maggioni C., Alvarez M., Femandez O., Tarquini B., Mainardi G., Bingham C., Kopher R., Vemier R., Rigatuso J., Johnson D. Effects Iostrog into adolescence of exposure to betamimetics in utero. Clinical Drug Investigation 9: 354-362,1995.
- Halberg F., Comelissen G., Halberg J., Fink H., Chen CH., Otsuka K., Watanabe Y., Kumagai Y., Syutkina E.V., Kawasaki T., Uezono K., Zhao Z.Y., Schwartzkopff O. Circadian Hyper-Amplitude-Tension, CHAT: a disease risk syndrome of anti-aging medicine. J. Anti-Aging Med. 1: 239-259,1998. (Editors Note by Fossel M., p. 239.)
- Smolensky M., Halberg F., Sargent F. 11: Chronobiology of the life sequence. In: Advances in Climatic Physiology, S. Itoh, K. Ogata, H. Yoshimura eds., Igaku Shoin Ltd., Tokyo, 1972, pp. 281-318.
- Reinberg A., Gervais P., Halberg F., Gaultier M., Roynette N., Abulker C., Dupont J. Mortalite des adultes: Rythmes circadiens et circannuels dans un hôpital parisien et en France. Nouv. Presse med. 2: 289-294, 1973.
- Halberg F., Comelissen G., Otsuka K., Syutkina E.V., Masalov A., Breus T., Viduetsky A., Grafe A. Schwartzkopff O. Chronoastrobiology: neonatal numerical counterparts to Schwabe's 10.5 and Hale's 21-year sunspot cycles. In memoriam Boris A. Nikityuk (Sept. 10, 1933-Sept. 30, 1998). Int. J. Prenat. Perinat. Psychol. Med., in press.
- Halberg F. Quo vadis basic and clinical chronobiology: promise for health maintenance. Am. J. Anat. 168: 543594, 1983.

Hall J.C., Kyriacou C.P. Genetics of biological rhythms in *Drosophila*. *Adv. Insect Physiol.* 22: 221-298,1990.

Kyriacou C.P., Hall J.C. Circadian rhythm mutations in *Drosophila melanogaster* affect a short-term punctuation in the male's courtship song. *Proc. Nat. Acad. Sci. USA* 77: 6929-6933,1980.

Halberg F. Chronobiologie; rythmes et physiologie statistique. In: *Theoretical Physics and Biology*, M. Mamić ed., North-Holland, Amsterdam, 1969, pp. 347-393. *Discosinns* pp. 339-344 and 394-411.

Halberg F., Marques N., Comelissen G., Bingham C., Sanchez de la Pena S., Halberg J., Marques M., Wu J., Halberg E. Circaseptan biologic time structure reviewed in the light of contributions by Laurence K. Cutkomp and Ladislav Derer. *Acta entomol. bohemoslov.* 87: 1-29, 1990.

Halberg F., Breus T. K., Comelissen G., Bingham C., Hillman D.C., Rigatuso J., Delmore P., Bakken E., International Womb-to-Tomb Chronome Initiative Group: Chronobiology in space. Keynote, 37th Ann. Mtg. Japan Soc. for Aerospace and Environmental Medicine,

Nagoya, Japan, November 8-9, 1991. University of Minnesota/Medtronic Chronobiology Seminar Series, #II, December 1991, 21 pp. of text, 70 figures.

Halberg F., Comelissen G., Kopher R., Choromanski L., Eggen D., Otsuka K., Bakken E., Tarquini B., Hillman D.C., Delmore P., Kawabata Y., Shinoda M., Vemier R., Work B., Cagnoni M., Cugini P., Ferrazzani S., Sitka U., Weinen D., Schuh J., Kato J., Kato K., Tamura K. Chronobiologic blood pressure and ECG assessment by Computer in obstetrics, neonatology, cardiology and family practice. In: *Computers and Perinatal Medicine: Proc. 2nd World Symp. Computers in the Care of the Mother, Fetus and Newborn*, Kyoto, Japan, Oct. 23-26, 1989, Maeda K, Hogaki M., Nakano H. eds., *Excerpta Medica*, Amsterdam, 1990, pp. 3-18.

Halberg F. The week in phylogeny and ontogeny: opportunities for oncology. *In vivo* 9: 269-278, 1995.

Grafe A. Einige charakteristische Besonderheiten des geomagnetischen Sonneneruptionseffektes. *Geofisica Pura e Applicata* 40: 172-179, 1958.

Halberg F., Comelissen G. Chronoastrobiology. In: *Proc.* 3rd

Young M. *The Metronomic Society: Natural rhythms and human timetables*. Harvard University Press, Cambridge, Massachusetts, 1988, 301 pp.

Abbot C.G. Solar variation and weather, a summary of the evidence, completely illustrated and documented. *Smithsonian Miscellaneous Collections* 146, No. 3 (Publ. 4545), Washington DC, 1963, 67 pp. + 4 plates.

Turti T., Syutkina E.V., Comelissen G., Grigoriev A.E., Mitish M.D., Abramian A. S., Siegelova J., Fiser B., Dusek J., AI-Kubati M., Muchova L., Uhlir M., Halberg F. Multiseptan-over-circadian prominence of neonatal blood pressure and heart rate in Moscow,

Russig. Catalogue, MEFA International Fair of Medical Technology and Pharmacy, Bmo, Czech Republic, November 6-9, 1996. Scripta medica 67 (Suppl. 2): 85-92, 1996.

Siegelova J., Dusek J., Fiser B., Nekvasil R., Muchova M., Comelissen G., Halberg F. Circaseptan rhythm in blood pressure and heart rate in newborns. Scripta medica 67 (Suppl. 2): 63-70, 1996.

Vemova Ye.S., Pochtarev V.I., Ptitsyna N.G., Tyasto M.I. Short-period variations in the rate of change of solar activity as a geosensitive parameter. Geomagnetism and Aeronomy 23: 425-427, 1983.

Roederer J.G. Are magnetic storms hazardous to your health? Eos, Transactions, American Geophysical Union 76: 441, 444-445, 1995.

Vladimirskii B.M., Narmanskii V.Ya., Temuriantz N.A. Global rhythmicity of the solar system in the terrestrial habitat. Biophysics 40: 731-736, 1995.

Comelissen G., Halberg F., Schwartzkopff O., Delmore P., Katinas G., Hunter D., Tarquini B., Tarquini R., Perfetto F., Watanabe Y., Otsuka K. Chronomes, time structures, for chronoengineering for "a full life". Biomedical Instrumentation & Technology 33: 152-187, 1999.

Comelissen G., Halberg F., Wendt H.W., Bingham C., Sothem R.B., Haus E., Kleitman E., Kleitman N., Revilla M.A., Revilla M. Jr, Breus T.K., Pimenov K., Grigoriev A.E., Mitish M.D., Yatsyk G.V., Syutkina E.V. Resonance of about-weekly human heart rate rhythm with solar activity change. Biologics (Bratislava) 51: 749-756, 1996.

Randall W., Randall S. The solar wind and hallucinations< a possible relation due to magnetic disturbances. Bioelectromagnetics 12: 67-70, 1991.

Maggioni C., Cornelissen G., Antinozzi R., Ferraho M., Grafe A., Halberg F. A half-yearly aspect of circulating melatonin in pregnancies complicated by intrauterine growth retardation. Int. J. Prenat. Perinat. Psychol. Med., in press.

Breus T., Comelissen G., Halberg F., Levitin A.E. Temporal associations of life with solar and geophysical activity. Annales Geophysicae 13: 1211-1222, 1995.

Halberg F., Comelissen G., Hillman D.C., Bingham C., Halberg E., Guillaume F., Banwiell F., Wu J.Y., Wang Z.R., Halberg F.E., Holte J., Schmitt O.H., Kellogg P.J., Luyten W., Breus T.K., Komarov F.I., Mikulecky M., Garcia L., Lodeiro C., Iglesias T., Quadens O., Mullen C.,

Kaada B., Miles L., Hayes D.K. Chronobiology in a moon-based chemical analysis and physiologic monitoring laboratory.

Hampton, VA, 1992, pp. 161-203.

Villoresi G., Breus T.K., Lucci N., Dorman L.I., Rapoport S.I. The influence of geophysical and social effects on the incidences of clinically important pathologies (Moscow 1979-1981). Physica Medica 10: 79-91, 1994.

Villoresi G., Kopytenko Y.A., Ptitsyna N.G., Tyasto M.I., Kopytenko E.A., Iucci N., Voronov P.M. The influence of geomagnetic storms and man-made magnetic field disturbances on the incidence of myocardial infarction in St. Petersburg (Russia). *Physica Medica* 10: 107-117, 1994.

Mendoza B., Diaz-Sandoval R. A preliminary study of the relationship between solar activity and myocardial infarctions in Mexico City. In preparation.

Feigin V.L., Nikitin Yu.P., Vinogradova T.E. Solar and geomagnetic activities: are there associations with stroke occurrence? *Cerebrovasc. Dis.* 7: 345-348, 1997.

Strestik J., Prigancova A. On the possible effect of environmental factors on the occurrence of traffic accidents. *Acta Geodaetica, Geophysica et Montanistica Hungarica* 21: 155-166, 1986.

Baevsky R.M., Petrov V.M., Comelissen G., Halberg F., Orth-Gomer K., Akerstedt T., Otsuka K., Breus T., Siegelova J., Dusek J., Fiser B. Meta-analyzed heart rate variability, exposure to geomagnetic storms, and the risk of ischemic heart disease. *Scripta medica* 70: 199-204, 1997.

Otsuka K., Comelissen G., Breus T., Chibisov S.M., Baevsky R., Halberg F. Altered chronome of heart rate variability during span of high magnetic activity. Abstract 10, *Neinvazivni metody v kardiovaskulamim vyzkumu*, 6th International Fair of Medical Technology and Pharmacy, MEFA Congress, Brno, Czech Republic, November 3-4, 1998.

Kleiger R.E., Millen J.P., Bigger J.T. Jr, Moss A.J., Multicenter Post-Infarction Research Group. Decreased heart rate variability and its association with increased mortality after acute myocardial infarction. *Am. J. Cardiol.* 59: 256-262, 1987.

Comelissen G., Bakken E., Delmore P., Orth-Gomer K., Akerstedt T., Carandente O., Carandente F., Halberg F. From various kinds of heart rate variability to chronocardiology. *Am. J. Cardiol.* 66: 863-868, 1990.

Nolan J., Batin P.D., Andrews R., Lindsay S.J., Brooksby P., Mullen M., Baig W., Flapan A.D., Cowley A., Prescott R.J., Neilson J.M.M., Fox K.A.A. Prospective study of heart rate variability and mortality in congestive heart failure: results of the United Kingdom Heart Failure Evaluation and Assessment of Risk Trial (UK-HEART). *Circulation* 98: 1510-1516, 1998.

Otsuka K. (ed.). *Chronome & Janus-medicine: Heart Rate Variability (HRV) and BP Variability (BPV) from a viewpoint of chronobiology and ecology*. Medical Review, Tokyo, 1998, 213 pp.

Thaela M-J., Comelissen G., Halberg F., Rantzer D., Svendsen J., Pierzynowski S.G. Extra-circadian (aboutweekly, half-weekly and 8-hourly) variation in pancreatic secretion of piglets. *Proc. XXVJII Int. Cong. International Union of Physiological Sciences*, St. PO41.36.

Dfez-Noguera A., Cambras T., Comelissen G., Halberg F. A biological week in the activity chronome of the weanling rat: a chrono-meta-analysis. Keynote, IV *Convegno Nazionale, Società Italiana di Cronobiologia*, Gubbio (Perugia), Italy, June 1-2, 1996, pp. 81-82.

Fanjul Moles M.L., Cornelissen G., Miranda Anaya M., Prieto Sagredo J., Halberg F. Larger infradian vs. circadian prominence of locomotor activity in young vs. older crayfish. Abstract, VI Convegno Nazionale de Cronobiologia, Chianciano, Italy, November 27-28, 1998, p. 65•

Cech T.R. The efficiency and versatility of catalytic RNA: implications for an RNA world. *Gene* 135: 33-36, 1993.

Halberg F., Bamum C.P., Silber R.H., Bittner J.J. 24- hour rhythms at several levels of Integration in mice on different lighting regimens. *Proc. Soc. exp. Biol. (N.Y.)* 97, 897-900, 1958.

Edmunds L.N., Halberg F. Circadian time structure of *Euglena*: a modal system amenable to quantification. In: *Neoplasms: Comparative Pathology of Growth in Animals, Plants and*

Man, H. Kaiser ed., Williams and Wilkins, Baltimore, 1981, pp. 105-134.

Ulmer W., Cornelissen G., Halberg F. Physical chemistry and the biologic week in the perspective of chrononology. *In vivo* 9: 363-374, 1995.

Chizhevsky A.L. *Les epidemies et les perturbations electromagnetiques du milieu exterieur. ~ditions Hippocrate, Paris, 1938, 239 pp.*

Gamburtsev A.G., Alexandrov S.I., Belyakov A.S., Galkin I.N., Gamburtseva N.G., Kuzmin Yu.O., Nikolaeva R.V., Oleinik O.V., Privalovsky N.K., Sidorov V.A., Khavroshkin O.B., Tsyplakov V.V. *Atlas of Natura) Processes: Order and Chaos in lithosphere and other spheres. Rossiiskaya akademia nauk, Moscow, 1994, 176 pp.*

Brown F.A. Jr: Response to pervasive geophysical factors and the biological Glock problem. *Cold Spr. Harb. Symp. quant. Biol.* 25: 57-72, 1960.

Bannell F.H. A day-to-day relationship between oxidative metabolism and mid-wide geomagnetic activity. *Biol. Bull.* 119: 303, 1960.

Hellbruegge T. The development of circadian rhythms in infants. *Cold Spr. Harb. Symp. quant. Biol.* 25: 311-323, 1960.

Hildebrandt G., Moser M., Lehofer M. *Chronobiologie und Chronomedizin: Biologische Rhythmen 1 Medizinische Konsequenzen. Hippokrates, Stuttgart, 1998, 141 pp.*

Hildebrandt G., Bandt-Reges I. *Chronobiologie in der Naturheilkunde: Grundlagen der Circaseptanephodik. Haug, Heidelberg, 1992, 102 pp.*

Sanchez de la Pena S. The feedforward of cephalo-adrenal immune interactions. *Chronobiologia* 20: 1-52, 1993.

Haen E. In: Forth W., Henschler D., Rummel W., Starke K. (eds.) *Allgemeine und spezielle Pharmakologie und Toxikologie. BI-Wiss. Verlag, Mannheim, 7ten Auflage, 1997, pp. 584-5xx.*

Walker W.V., Rassel J. E., Simmons D.J., Scheving L. E., 59. in *mulme metaphyseal hone. Biochem. Pharmacol.* 34: 1191-1196, 1985.

Tarquini B., Comelissen G., Peretto F., Tarquini R., Halberg F. Chronome assessment of circulating melatonin in human. *In vivo* 11: 473-484,1997.

Halberg E., Halberg F. Chronobiologic study design in everyday life, clinic and laboratory. *Chronobiologia* 7: 95-120,1980.

Zusatz:

Geo-Psychologie

Aschoff J., von Goetz C., Wildgruber C., Wever R. A.: Meal timing in humans during isolation without time cues. *Journal of Biological Rhythms*, 1: 151-162 (1986).

Mistlberger R., Skene D.J.: Nonphotic entrainment in humans? *Journal of Biological Rhythms*, 20: 339-352 (2005).

Morgan L., Hampton S., Gibbs M., Arendt J. (2003): Circadian aspects of postprandial metabolism. *Chronobiology International*, 20: 795-808.

Qin L.-Q.: The effects of nocturnal life on endocrine patterns in healthy adults. *Life Sciences*, 73: 2467-2475 (2003).

Zulley J., Knab B.: *Unsere Innere Uhr. Natürliche Rhythmen nutzen und der Non-Stop-Belastung entgegen.* Herder: Freiburg (2003).

Zulley J., Knab B.: *Wach und fit. Mehr Energie, Ausgeglichenheit und Leistungsfähigkeit.* Herder: Freiburg (2004).

Halberg F., Comelissen G., Halberg J., Fink H., Chen CH., Otsuka K., Watanabe Y., Kumagai Y., Syutkina E.V., Kawasaki T., Uezono K., Zhao Z.Y., Schwartzkopff O. Circadian Hyper-Amplitude-Tension, CHAT: a disease risk syndrome of anti-aging medicine. *J. Anti-AgingMed.* 1: 239-259,1998. (Editors Note by Fossel M., p. 239.)

Smolensky M., Halberg F., Sargent F. 11: Chronobiology of the life sequence. In: *Advances in Climatic Physiology*, S. Itoh, K. Ogata, H. Yoshimura eds., Igaku Shoin Ltd., Tokyo, 1972, pp. 281-318.

Reinberg A., Gervais P., Halberg F., Gaultier M., Roynette N., Abulker C., Dupont J. *Mortalite des adultes: Rythmes circadiens et circannuels dans un hôpital parisien et en France.* *Nouv. Presse med.* 2: 289-294, 1973.

Halberg F., Comelissen G., Otsuka K., Syutkina E.V., Masalov A., Breus T., Viduetsky A., Grafe A., Schwartzkopff O. Chronoastrobiology: neonatal numerical counterparts to Schwabe's 10.5 and

Hale's 21-year sunspot cycles. In memoriam Boris A. Nikityuk (Sept. 10, 1933-Sept. 30, 1998). *Int. J. Prenat. Perinat. Psychol. Med.*, in press.

Halberg F. Quo vadis basic and clinical chronobiology: promise for health maintenance. *Am. J. Anat.* 168: 543594, 1983.

Chronowissenschaft und Psychobiologie

- Anochin, P. K. (1967): Das funktionelle System als Grundlage der physiologischen Architektur des Verhaltensaktes. Abh. aus dem Gebiet der Hirnforschung und Verhaltensphysiologie. VEB G. Fischer Verlag, Jena, Bd. 1, S. 56
- Aschoff, J. (1955): Zeitgeber der 24-Stunden-Periodik. *Acta Scand.* **306-309**, S. 50-52
- Aschoff, J. (1959): Zeitliche Strukturen biologischer Vorgänge. *Nova Acta Leopoldiana* **21**, S. 147
- Barnwell, F. H. (1960): A day-today relationship between oxidative metabolism and world-wide geomagnetic activity. *Biol. Bull.* **119**, S. 303
- Becker, R. O. (1994): Heilkraft und Gefahren der Elektrizität. Scherz Verlag - Neue Wissenschaft, Berlin, München, Wien
- Breus, R. K.; F. J. Komarov; M. M. Musin; I. V. Naburow; S. J. Rapoport (1989): Heliogeographical factors and their influence on cyclical process in biosphäre. *Itogi, Nauki i Technik; Medicinskaya Geografia* 18, S. 138-174
- Breus, R.; G. Cornélissen; F. Halberg; A. E. Levitin (1995): Remporal associations of life with solar and geophysical activity. *Anales geophysica* 13
- Brown, F. A.; H. M. Webb; M. F. Bennett; M. J. Sandeen (1955): Evidence for an exogenous contribution to persistent diurnal and lunar rhythmicity under so called constant conditions. *Biol. Bull.* **109**, S. 238-254
- Brown, F. A.; H. M. Webb; M. F. Bennett (1958): Comparisons of some fluctuations in cosmic radiation and organismic activity during 1954, 1955 and 1956. *Am. J. Physiol.* **195**, S. 237-242
- Brown, F. A. (1960): Response to pervasive geophysical factors and the biological clock problem. *Cold Spr Harb Symp quant Biol* **25**, S. 57-71
- Chizhevsky, A. L. (1940): *Cosmobiologie et Rythme du Milieu ext'rieur*. Verhandlungen, Zweite Konferenz der Internationalen Gesellschaft für Biologische Rhythmusforschung am 25.-26. August 1939, Utrecht, Holland, holmgren Hj. editor. *Acta Med. Scand.* **108**, S. 211-226
- Dubrow, A. P. (1978): *The geomagnetic field on life: Geomagnetobiology*. Plenum Press, New York, S. 318ff

Düll, T.; B. Düll (1934): Über die Abhängigkeit des Gesundheitszustandes von plötzlichen Eruptionen auf der Sonne und die Existenz einer 27tägigen Periode in Sterbefällen. *Virchow Archiv* **293**, S. 272-319

Düll, T.; B. Düll (1935): Zusammenhänge zwischen Störungen des Erdmagnetismus und Häufungen von Todesfällen. *Deutsch. med. Wschr.* 61, S. 95-97

Feigin, V. L.; Yu, P. Nikitin; T. E. Vinogradova (1997): Lolar and geomagnetic activities: are there associations with stroke occurrence? *Cerebrovasc. Dis.* 7, S. 345-348

Feinleib, M.; E. Rogot; P. A. Sturrock (1975): Solaractivity and mortality in the United States. *Int. J. Epidemiol.* 4, S. 227-229

Friedman, H.; R. O. Becker; C. H. Bachmann (1963): *Nature* 200, S. 626

Friedman, H.; R. O. Becker; C. H. Bachmann (1965): *Nature* 205, S. 1050

Gnevyshev, M. N.; K. F. Novikova (1972): The influence of solar activity on the Earth's biosphere (Part I). *Interdiscipl. Cycle Res.* 3:99

Halberg, F. (1953): Some physiological and clinical aspects of 24 hour periodicity. *Lancet* 73, S. 20-32

Halberg, F. (1960): The 24-hour scale: A time dimension of adaptive functional organization. *Perspect. Biol. Med.* 3, S. 491

Halberg, F.; T. K. Breus; G. Cornélissen; C. Bingham; D. C. Hillman; J. Rigatuso; P. Dalmore; E. Bakken; International Womb-to-Tomb Chronome Initiative Group (1991): Chronobiology in space. Keynote, 37th Ann Mtg Japan Soc for Aerospace and Environmental Medicine, Nagoya, Japan, Nov 08-09, University of Minnesota/Medtronic Chronobiology Seminar Series #01, December

Halberg, F. (2000): Historical encounters between geophysics and biomedicine leading to the Cornélissen-series and chronoastrobiology. In: W. Schröder (ed.): Long- and Short-Term Variability in Sun's History and Global Change. Science Edition, Bremen, S. 271-301

Halberg, F.; G. Cornélissen; K. Otsuka; Y. Watanabe; G. S. Kalinus; N. Burioka; A. Delyukova; B. Fiser; J. Dusek; E. V. Syutkina; F. Perfetto; R. Tarquini; R. B. Singh; B. Rhee; D. Lofstrom; P. Lofstrom; P. W. C. Johnson; O. Schwartzkopff (2001a): Cross-spectrally coherent ~10,5 and 21 year biological and physical cycles, magnet storms and myocardial infarctions. *Neuroendocrinology Letters* 21, S. 233-258

Halberg, F.; G. Cornélissen, D. Otsuka; G. Katinas; O. Schwartzkopff (2001b): Essay on chronomics spawned by transdisciplinary chronobiology. *Witness in time: Earl Elmers Bakken. Neuroendocrinology Letters* 22, S. 359-384

Hildebrandt, G. (1962a): Zur Frage der rhythmischen Funktionsordnung beim Menschen. In L. Delius; H. Koepchen; E. Witzleb (Hrsg.): Probleme der zentralnervösen Regulation. Berlin, Göttingen, Heidelberg, S. 22-28

- Hildebrandt, G. (1962b): Biologische Rhythmen und ihre Bedeutung für die Bäder- und Klimaheilkunde. In: W. Amelung; A. Evers (Hrsg.): Handbuch der Bäder- und Klimaheilkunde. Schattauer, Stuttgart, S. 730-785
- Hildebrandt, G. (1962c): Reaktive Perioden und Spontanrhythmik. Reports 7. Conference of the Society for Biological Rhythm. Siena 1960, Panminerva Medica, Torino, S. 75-82
- Hildebrandt, G.; E. M. Lowes (1972): Tagesrhythmische Schwankungen der vegetativen Lichtreaktionen beim Menschen. J. Interdiscipl. Cycle Res. 3, S. 289-301
- Hildebrandt, G., M. Moser, M. Kehofer (1998): Chronobiologie und Chronomedizin. Hippokrates, Stuttgart
- Lipa, B. J.; P. A. Sturrock; E. Rogot (1976): Search for correlation between geomagnetic disturbance and mortality. Natur 259, S. 302-304
- Mendoze, B.; R. Diaz-Sandoval (2000): The relationship between solar activity and myocardial infarctions in Mexico City. Geofisica International 39(1), S. 53-56
- Mikulecky, M. (ed.) (1997): Chronobiology and its Roots in the Cosmos. High Tatras, Slovakia, September 02-06, Slovak Medical Society, Bratislava
- Novikova, K. F.; N. N. Gnevyshev; N. V. Tokareva (1968): The effect of solar activity on development of myocardial infarction morbidity and mortality. Cardiology (Moscow) 4, S. 109ff
- Roederer, O. G. (1995): Are magnetic storms hazardous to your health? Eos, Transactions, American Geophysical Union 76, S. 441, 444-445
- Stoupel, E.; E. Abramson; J. Sulkes (1999): The effect of environmental physical influence on suicide: How long is the delay? Arch. suicide Res. 5, S. 241-244
- Strestik, O.; A. Prigancova (1986): On the possible effect of environmental factors on the occurrence of traffic accidents. Acta Geodaetica, Geophysica et Montanistica Hungarica 23, S. 155-165
- Strestik, O.; I. Sitar (1996): The influence of heliogeophysical and meteorological factors on sudden cardiovascular mortality. Internationals Society of Biometeorology, Sydney. Proceedings of the 14th Internationals Congress of Biometeorology, September 1996, Ljubljana, Slovenia, Part. 2 vol. 3, S. 166-173
- Villoresi, G.; Y.A. Kopytenko; N. G. Pritsyne; M. T. Tyasto; E. A. Kopytenko; N. Iucci; P. M. Voiony (1994): The influence of geomagnetic storms and man-made magnetic field disturbances on the incidence of myocardial infarction in St. Petersburg (Russia). Physica Medica 19, S. 197-117
- Vladimirskil B. M.; V. Ya. Narmanskii; N. A. Temuriantz (1995): Global rhythmicity of the solar system in the terrestrial habitat. Biophysics 40, S. 731-736
- Wever, R. (1966): Das Schwingungsgesetz der biologischen Tagesperiodik. Umschau H. 14, S. 462-469

Wever, R. (1979): *The Circadian System of Man: Results of experiments under temporal isolation*. Springer Verlag, New York, Heidelberg, Berlin

Wiener, N. (1948): *Cybernetics or Control and Communication in the Animal and the Machine*. Institute of Technology, Massachusetts

Zulley, J. (1994): Schlaf und Schlafstörungen aus chronobiologischer Sicht. *Der Allgemeinarzt* 13; S. 1028- 1040

Zulley, J.; B. Knab (2000): *Unsere innere Uhr*. Herder, Freiburg

Psycho-Heliobiologie

Adams, M.H. (1986). Variability in remote-viewing performance: Possible relationship to the geomagnetic field. In D.H. Weiner & D.I. Radin (Eds.), *Research in Parapsychology*, 1985 (p. 25). Metuchen, NJ: Scarecrow Press.

Andrade, H.G. (1967). *Experimental parapsychology*. Sao Paulo: Edicao Calvario.

von Bertalanffy, L. (1968). *General system theory. Essays on its foundation and development* (rev. ed.). New York: George Brazillier.

Braud, W.G., & Dennis, S.P. (1989). Geophysical variables and behavior: LVIII. Autonomic activity, hemolysis, and biological psychokinesis: Possible relationships with geomagnetic field activity. *Perceptual and Motor Skills*, 68, 1243-1254.

Krippner, S. (1975). *Song of the siren: A parapsychological odyssey*. New York: Harper and Row.

Krippner, S., Becker, A., Cavallo, M., & Washburn, B. (1972, Fall). Electrophysiological studies of ESP in dreams: Lunar cycle differences in 80 telepathy sessions. *Human Dimensions*, pp. 14-19.

Krippner, S., & Persinger, M. (1996). Evidence for enhanced congruence between dreams and distant target material during periods of decreased geomagnetic activity. *Journal of Scientific Exploration*, 10, 487-493.

Laszlo, E. (1993). *The creative cosmos*. Edinburgh, Scotland: Floris Books.

Palmer, J. (1994). Explorations with the perceptual ESP test. *Journal of Parapsychology*, 58, 115-147.

Persinger, M.A. (1975). ELF field meditation in spontaneous psi events. Direct information transfer or conditioned elicitation? *Psychoenergetic Systems*, 3, 155-169.

Persinger, M.A. (1985). Geophysical variables and behavior: XXX. intense paranormal activities occur during days of quite, global geomagnetic activity. *Perceptual and Motor Skills*, 61, 320-322.

Persinger, M.A. (1989). Psi phenomena and temporal lobe activity: The geomagnetic factor. In LA. Henkel & R. Berger (Eds.), *Research in parapsychology 1988* (pp. 121-156). Metuchen, NJ: Scarecrow Press.

Persinger, M.A., & Krippner, S. (1989). Dream ESP experiments and geomagnetic activity. *Journal of the American Society for Psychological Research*, 83, 101-116.

Spottiswoode, S.J.P. (1997). Apparent association between effect size in free response anomalous cognition experiments and local sidereal time. *Journal of Scientific Exploration*, 11, 109-122.

Spottiswoode, S.J.P., & May, E. (1997, June). Evidence that free response anomalous cognitive performance depends upon local sidereal time and geomagnetic fluctuations (Abstract). *Presentation Abstracts, Sixteenth Annual Meeting of the Society for Scientific Exploration*, p. 8.

Tart, C.T. (1988). Geomagnetic effects on GESP: Two studies. *Journal of the American Society of Psychical Research*, 82, 193-216.

Tinoco, C.A. (1982). *The biological organizing model*. Curitiba: Grafica Veja.

Ullman, M., Krippner, S., & Vaughan, A. (1989). *Dream telepathy. Experiments in nocturnal ESP* (2nd ed.). Jefferson, NO: McFarland, 1989.

SOLAR ACTIVITY:
A DOMINANT FACTOR IN CLIMATE DYNAMICS
by
Dr Theodor Landscheidt
Schroeter Institute for Research in Cycles of Solar Activity
Nova Scotia, Canada

[1] Ardanuy, P., Stowe, L. L. Gruber, A. und Weiss M.: Shortwave, Longwave, and Net Cloud-Radiative Forcing as Determined From Nimbus-7 Observations. *J. Geophys. Res.* 9 (1991), 1-2.

[2] Bailey, R.: Demagoguery in Green. *National Review* v. 16. 3. 1992, 43.

[3] Baliunas, S. und Jastrow, R.: Evidence for Long-Term Brightness Changes of Solar-Type Stars. *Nature* 348 (1990), 520.

[4] Barlow., A. K. und Latham, J.: A Laboratory Study of the Scavenging of Sub-Micron Aerosol by Charged Raindrops. *Quart. J. R. Met. Soc.* 109 (1983), 763-770.

[5] Berger, A. L.: Long-Term Variations of Caloric Insolation Resulting From the Earth's Orbital Elements. *Quaternary Research* 9 (1978), 139-167.

[6] Dicke, R. H.: The Sun's Rotation and Relativity. *Nature* 202 (1964), 432-435.

[7] Dickinson, R. E.: Solar Variability and the Lower Atmosphere. *Bull. Am. Meteorol. Soc.* 56 (1975), 1240.

[8] EOS, Transactions, American Geophysical Union, 18. Okt. 1988, 1.

[9] Feder, T.: Attacks on IPCC Report Heat Controversy Over Global Warming. *Physics Today*, August 1996, 55-57.

[10] Flohn, H.: Klimaschwankungen in historischer Zeit. In: H. Rudloff: Die Schwankungen des Klimas in Europa seit dem Beginn der regelmäßigen Instrumenten-Beobachtungen 1670. Braunschweig, Vieweg, 1967, 87.

[11] Foukal, P.: *Solar Astrophysics*. New York, John Wiley, 1990, 409.

[12] Foukal, P. and Lean, J.: An Empirical Model of Total Solar Irradiance Variation Between 1874 and 1988. *Science* 247 (1988), 505.

[13] Foukal., P.: The Variable Sun. *Scientific American* 270 (1990), 2, 34-41.

[14] Franke, H.: *Lexikon der Physik*. Stuttgart, Franckh'sche Verlagshandlung, 1969, 845.

[15] Friis-Christensen, E. and Lassen, K.: Length of the Solar Cycle: an Indicator of Solar Activity Closely Associated With Climate. *Science* 254 (1991), 698-700.

- [16] Fu, L. L., Koblinsky, C. J., Minster, J. F. und Picaut, J.: Reflecting on the First Three Years of TOPEX/POSEIDON. EOS, 19. 3. 1996, 109-110.
- [17] Gleissberg, W.: The Eighty-Year Sunspot Cycle, J. British Astron. Ass. 68 (1958), 148-152.
- [18] Hansen, J. E. und Lacis, A. A.: Sun and Dust Versus Greenhouse Gases: an Assessment of Their Relative Roles in Global Climatic Change. Nature 346 (1990), 713.
- [19] Hays, J. D., Imbrie, J. und Shackleton, N.: Variations in the Earth's Orbit: Pacemaker of the Ice Ages. Science 194 (1976), 1112-1132.
- [20] Herschel, W.: Observations Tending to Investigate the Nature of the Sun, in Order to Find the Causes or Symptoms of its Variable Emission of Light and Heat. Royal Soc. London Philos. Trans. 91 (1801), 265-318.
- [21] Hoyt, D. V.: Using the Boundary Conditions of Sunspots as a Technique for Monitoring Solar Luminosity Variations. In: K. H. Schatten und A. Arking, Hsg.: Climate Impact of Solar Variability. Greenbelt, NASA Conference Publication 3086, 1990, 44.
- [22] Kertz, W.: Einführung in die Geophysik. Mannheim, Bibliographisches Institut, 1971, 376.
- [23] Kleinschmidt, C.: Neue Daten über die Dicke der Eisschicht am Nordpol. Bremer Nachrichten v. 4. 11. 1995.
- [24] Köppen, W.: Über mehrjährige Perioden der Witterung, insbesondere über die 11jährige Periode der Temperatur. Österr. Meteor. Ztschr. 8, 1873.
- [25] Landsberg, H. E.: Man-Made Climatic Changes. In: Proceedings of the Symposium on Physical and Dynamic Climatology of the World Meteorol. Org. 347 (1974), 262-303.
- [26] Landscheidt, T.: Solar Oscillations, Sunspot Cycles, and Climatic Change. In: B. M. McCormac, Hsg.: Weather and Climate Responses to Solar Variations. Boulder, Colorado Associated University Press, 1983, 293-308.
- [27] Landscheidt, T.: Long Range Forecasts of Energetic X-Ray Bursts Based on Cycles of Flares. In: P. A. Simon, G. Heckman, and M. A. Shea, Hsg.: Solar-Terrestrial Predictions. Boulder, National Oceanic and Atmospheric Administration, 1986, 81-89.
- [28] Landscheidt, T.: Solar Motion, Impulses of the Torque in the Sun's Motion, and Climate Variation. Climatic Change 12 (1988), 265-295.
- [29] Landscheidt, T.: Sun-Earth-Man. London, Urania, 1989, 63.
- [30] Landscheidt, T.: Relationship between Rainfall in the Northern Hemisphere and Impulses of the Torque in the Sun's Motion. In: K. H. Schatten und A. Arking, Hsg.: Climate Impact of Solar Variability. Proceedings of a Conference held at NASA Goddard Space Flight Center, Greenbelt, April 24-27, 1990. NASA Conference Publication 3086.

- [31] Landscheidt, T.: Global Warming or Little Ice Age? In: C. W. Finkl, Hsg.: Holocene Cycles - Climate, Sea Levels, and Sedimentation. Fort Lauderdale, Journal of Coastal Research, Volume in Celebration of the 80th Birthday of Rhodes W. Fairbridge, 1995, 371-382.
- [32] Lassen, K. und Friis-Christensen, E.: Variability of the Solar Cycle Length During the Past Five Centuries and the Apparent Association With Terrestrial Climate. *Journ. of Atmos. Terr. Phys.* 57 (1995), 835-845.
- [33] Ley, W.: Die Himmelskunde. Wien, Econ-Verlag, 1965, 136, 509.
- [34] Milankovich, M.: Mathematische Klimalehre und astronomische Theorie der Klimaschwankungen. In: W. Köppen und R. Geiger: *Handbuch der Klimatologie*, Bd. 1. Berlin, 1930.
- [35] Ohring, G. und Clapp, P. F.: The Effect of Changes in Cloud Amount on the Net Radiation at the Top of the Atmosphere. *Journ. Atmos. Sci.* 37 (1980), 447-454.
- [36] Pudovkin., M. I. und Veretenenko, S.: Cloudiness Decreases Associated With Forbush-Decreases of Galactic Cosmic Rays. *J. Atm. Terr. Phys.* 57 (1995), 1349-1355.
- [37] Ramanathan, V., Barkstrom, B. R. und Harrison, E. F.: Climate and the Earth's Radiation Budget. *Physics Today*, Mai 1989, 22-32.
- [38] Reid, G. C.: Solar Total Irradiance Variations and the Global Sea Surface Temperature Record. *Journal Geophys. Research* 96 (1991), 2835.
- [39] Rossi, B.: *Cosmic Rays*. London, Allen and Unwin, 1966, 207.
- [40] Rossow, W. und Schiffer, R.: ISCCP Cloud Data Products. *Bull. Amer. Meteor. Soc.* 72 (1991), 220.
- [41] Willson, R. C. und Hudson, H. S.: The Sun's Luminosity Over a Complete Solar Cycle. *Nature* 351 (1991), 42.
- [42] Wolf, R.: Sunspot Epochs Since A.D. 1610: The Periodic Return of Sunspot Minima. *Acad. Sci. Comptes Rendus* 35 (1852), 704-705.
- [1] Arnol'd, V. I.: Small denominators and problems of stability of motion in classical and celestial mechanics. *Russ. Math. Surv.* 18 (1963), 85.
- [2] Baliunas, S. & Soon, W.: Are variations in the length of the activity cycle related to changes in brightness in solar-type stars? *Astrophys. J.* 450 (1995), 896.
- [3] Baltuck, M., Dickey, J., Dixon, T. & Harrison, C. G. A.: New approaches raise questions about future sea level change. *EOS*, 1. Oktober 1996, 385, 388.
- [4] Barlow, A. K. & Latham, J.: A laboratory study of the scavenging of submicro aerosol by charged raindrops. *Quart. J. R. Met. Soc.* 109 (1983), 763.

- [5] Baur, F.: Abweichungen der Monatsmittel der Temperatur Mitteleuropas & des Niederschlags in Deutschland. Beilage zur Berliner Wetterkarte des Instituts für Meteorologie der Freien Universität Berlin vom 24. 6. 1975.
- [6] Bossolasco, M., Dagnino, I., Elena, A. & Flocchini, G.: Thunderstorm activity and interplanetary magnetic field. *Riv. Italiana Geofis.* 22 (1973), 293.
- [7] Brückner, E.: Klimaschwankungen seit 1700. *Geographische Abhandlungen* 14 (1890), 325.
- [8] Bürke, T.: Die Flecken der Sterne. *Süddeutsche Zeitung* vom 30. 10. 1997, 41.
- [9] Burroughs, W. J.: *Weather cycles - real or imaginary?* Cambridge University Press, 1992, 38, 128, 149.
- [10] Butler, C. J.: A two-century comparison of sunspot cycle length and temperature change - the evidence from Northern Ireland. In: Emsley, J., Hsg.: *The global warming debate. The report of the European Science and Environment Forum (ESEF).* London, ESEF, 1996, 215.
- [11] Clough, H. W.: Synchronous variations in solar and terrestrial phenomena. *Astrophys. J.* 22 (1905), 42.
- [12] Clough, H. W.: The 11-year sunspot period, secular periods of solar activity, and synchronous variations of terrestrial phenomena. *Monthly Weather Rev.* 60 (1933), 99.
- [13] Courtney, R. S.: Die Risiken des global warming. In: H. Metzner, Hsg.: *Treibhaus-Kontroverse & Ozon-Problem.* Tübingen, Europäische Akademie für Umweltfragen, 1996, 159.
- [14] Dicke, R. H.: The sun's rotation and relativity. *Nature* 202 (1964), 432.
- [15] Dickinson, R. E.: Solar variability and the lower atmosphere. *Bull. Am. Meteorol. Soc.* 56 (1975), 1240.
- [16] Eddy, J. A.: Historical evidence for the existence of the solar cycle. In: White, O. R.: *The solar output and its variation.* Boulder, Colorado Associated University Press, 1977, 67.
- [17] Eddy, J. A.: A new sun. *The solar results from skylab.* Washington, D. C., NASA, 1979, 12.
- [18] EOS, *Trans. Amer. Geophys. Union*, 18. Oktober 1988, 1.
- [19] Fichet, T.: Solar radiation and global climate change: some experiments with a two-dimensional climate model. In: B. Frenzel, Hsg.: *Solar output and climate during the Holocene.* Stuttgart-Jena-New York, Gustav Fischer Verlag, 1995, 169.
- [20] Flohn, H.: Jüngste Klimaänderungen: Treibhauseffekt oder Beschleunigung des Wasserkreislaufs. In: Metzner, H., Hsg.: *Globale Erwärmung - Tatsache oder Behauptung?* Tübingen, Europäische Akademie für Umweltfragen, 1993, 91.
- [21] Foukal, P. V.: The variable sun. *Scient. American*, Februar 1990, 39.
- [22] Foukal, P. & Lean, J.: An empirical model of total solar irradiance between 1874 and 1988. *Science* 247 (1990), 556- 558.
- [23] Franke, H.: *Lexikon der Physik.* Stuttgart, Francksche Verlagshandlung, 1969, 845, 1603.
- [24] Friis-Christensen, E. & Lassen, K.: Length of the solar cycle: an indicator of solar activity closely associated with climate. *Science* 254 (1991), 698.
- [25] Fröhlich, C.: Variations in total solar irradiance. In: B. Frenzel, Hsg.: *Solar output and climate during the Holocene.* Stuttgart-Jena-New York, Gustav Fischer Verlag, 1995, 125, 126, 127.
- [26] Fu, L.L, Koblinsky, C. J., Minster, J. F. & Picaut, J.: Reflecting on the first three years of TOPEX/POSEIDON. *EOS* 77 (1996), Nr. 12, 19. März 1996, 109,111, 117.
- [27] Gordon, A. H.: Bias in measured data. In: Bate, R., Hsg.: *Global Warming. The continuing debate.* Cambridge, The European Science and Environment Forum (ESEF), Cambridge, 1998, 55.
- [28] Groveman, B. S. & Landsberg, H. E.: Simulated northern hemisphere temperature departures 1579-1880. *Geophysical Research Letters*, 6 (1979), 767.

- [29] Haigh, J.: On the impact of solar variability on climate. *Science* 272 (1996),981.
- [30] Hansen, J. E. & Lebedeff, S.: Global surface air temperatures. Update through 1987. *Geophysical Research Letters* 15 (1988), 323.
- [31] Hansen, J., Lacis, A., Rind, D., Russell, G., Stone, P., Fung, I., Ruedy, R. & Lerner, J.: Climate sensitivity: analysis of feedback mechanisms. In: J. E. Hansen & T. Takahashi, Hsg.: *Climate processes and climate sensitivity*. Geophys. Series 29. Washington, D. C., Am. Geophys. Union (AGU),1990, 130.
- [32] Hansen, J. E., Lacis, A. A., & Ruedy, R. A.: Comparison of solar and other influences on long-term climate. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 142.
- [33] Harvey, L. D. D.: On the role of high latitude ice, snow, and vegetation feedbacks in the climatic response to external forcing changes. *Climatic Change* 13 (1988), 191.
- [34] Hood, L. L. & Jirikowic, J. L.: A mechanism involving solar ultraviolet variations for modulating the interannual climatology of the middle atmosphere. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 165.
- [35] Houghton, J. T., Jenkins, G. J. & Ephraums, J.J.: *Climatic change. The IPCC scientific assessment*. Cambridge University Press, 1990.
- [36] Houghton, J. T., Meira Filho, L. G., Callander, B. A., Harris, N., Kattenberg, A. & Maskell, K.: *Climate Change 1995*. Cambridge, 1996, 81, 366, 381.
- [37] Howard, R.: The rotation of the sun. *Scient. American* 232 (1975), 106.
- [38] Hoyt, D. V.: Using the boundary conditions of sunspots as a technique for monitoring solar luminosity variations. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 44.
- [39] Hoyt, D. V. & Schatten, K. H.: *The role of the sun in climate change*. New York-Oxford, Oxford University Press, 1997, 61, 70, 86, 184,188,194, 214.
- [40] Jones, P. D.: Hemispheric surface air temperature variations. Recent trend and an update to 1987. *J. Climate* 1 (1988), 645.
- [41] Jose, P. D.: Sun's motion and sunspots. *Astron. J.* 70 (1964), 195.
- [42] Joselyn, J. A.: SESC methods for short-term geomagnetic predictions. In: Simon, P. A., Heckman, G. & Shea, M. A.: *Solar-terrestrial predictions*. Proceedings of a workshop at Meudon, 18.-22. Juni 1984. Boulder, National Oceanic and Atmospheric Administration, 1986, 404.
- [43] Kahl, J. D., Charlevoix, D. J., Zaitseva, N. A., Schnell, R. C. & Serreze, M. C.: Absence of evidence for greenhouse warming over the Arctic Ocean in the past 40 years. *Nature* 361 (1993), 335.
- [44] Kaku, M.: *Quantum field theory*. Oxford University Press, 1993, 14.
- [45] Kappraff, J.: *Connections. The geometry bridge between art and science*. New York, McGraw Hill, 1991, 85, 89, 308, 313.
- [46] Kertz, W.: *Einführung in die Geophysik*. Mannheim, Bibliographisches Institut, 1971, 376-377.
- [47] Kolmogorov, A. N.: Preservation of conditionally periodic movements with small change in the Hamiltonian function. *Lecture Notes in Physics* 93 (1979), 51.
- [48] Kuo, C., Lindberg, C. & Thomson, D. J.: Coherence established between atmospheric carbon dioxide and global temperature. *Nature* 343 (1990), 709.
- [49] Labitzke, K. & van Loon, H.: *Sonnenflecken & Wetter. Gibt es doch einen Zusammenhang?* *Die Geowissenschaften* 8 (1990), 1.
- [50] Labitzke, K. & van Loon, H.: Some recent studies of probable connection between solar and atmospheric variability. *Ann. Geophysicae* 11 (1993), 1084.
- [51] Labitzke, K. & van Loon, H.: Associations between the 11-year sunspot cycle, the quasi-biennial oscillation, and the atmosphere. *Philosophical Transactions of the Royal Society of London, A*, 330 (1990), 577.

- [52] Lamb, H. H.: *Climate: Present, past, and future*. Bd. 1. London, Methuen, 1972, 186, 456.
- [53] Landsberg, H. E.: Man-made climatic changes. In: *Proceedings of the symposium on physical and dynamic climatology of the World Meteorological Organization* 347 (1974), 262.
- [54] Landscheidt, T.: Beziehungen zwischen der Sonnenaktivität & dem Massenzentrum des Sonnensystems. *Nachrichten der Olbers-Gesellschaft* 100 (1976), 12, 14-15.
- [55] Landscheidt, T.: Solar oscillations, sunspot cycles, and climatic change. In: McCormac, B. M., Hsg.: *Weather and climate responses to solar variations*. Boulder, Associated University Press, 1983, 301, 302, 304.
- [56] Landscheidt, T.: Cycles of solar flares and weather. In: Moerner, N.A. & Karlén, W., Hsg.: *Climatic changes on a yearly to millennial basis*. Dordrecht, D. Reidel, 1984, 475, 476.
- [57] Landscheidt, T.: Long-range forecast of energetic x-ray bursts based on cycles of flares. In: Simon, P. A., Heckman, G. & Shea, M. A.: *Solar-terrestrial predictions*. Proceedings of a workshop at Meudon, 18.-22. Juni 1984. Boulder, National Oceanic and Atmospheric Administration, 1986, 85, 86, 87-88.
- [58] Landscheidt, T.: Long-range forecast of sunspot cycles. In: Simon, P. A., Heckman, G. & Shea, M. A.: *Solar-terrestrial predictions*. Proceedings of a workshop at Meudon, 18.-22. Juni 1984. Boulder, National Oceanic and Atmospheric Administration, 1986, 53-55.
- [59] Landscheidt, T.: Long-range forecasts of solar cycles and climate change. In: Rampino, M. R., Sanders, J. E., Newman, W. S. & Königsson, L. K.: *Climate. History, Periodicity, and predictability*. New York, van Nostrand Reinhold, 1987, 433-438.
- [60] Landscheidt, T.: Solar rotation, impulses of the torque in the sun's motion, and climatic variation. *Climatic Change* 12 (1988), 267-268, 270, 277, 278-280, 283, 286-290.
- [61] Landscheidt, T. & Wöhl, H.: Solares Aktivitätsminimum erst 1989/90? *Sterne & Weltraum*, November 1986, 584.
- [62] Landscheidt, T.: Relationship between rainfall in the northern hemisphere and impulses of the torque in the sun's motion. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 260.
- [63] Landscheidt, T.: Global warming or Little Ice Age? In: Finkl, C. W., Hsg.: *Holocene cycles. A Jubilee volume in celebration of the 80th birthday of Rhodes W. Fairbridge*. Fort Lauderdale, The Coastal Education and Research Foundation (CERF), 1995, 372, 373, 374-375.
- [64] Landscheidt, T.: Die kosmische Funktion des Goldenen Schnitts. In: P. H. Richter, Hsg.: *Sterne, Mond & Kometen*. Bremen & die Astronomie. Bremen, Verlag H. M. Hauschild, 1995, 240-276.
- [65] Landscheidt, T.: Klimavorhersage mit astronomischen Mitteln? *Fusion* 18 (1997), Nr. 1, 58.
- [66] Landscheidt, T.: Forecast of global temperature, El Niño, and cloud coverage by astronomical means. In: Bate, R., Hsg.: *Global Warming. The continuing debate*. Cambridge, The European Science and Environment Forum (ESEF), 1998, 172.
- [67] Laskar, J.: A numerical experiment on the chaotic behaviour of the solar system. *Nature* 338 (1989), 237.
- [68] Lassen, K. & Friis-Christensen, E.: Variability of the solar cycle length during the past five centuries and the apparent association with terrestrial climate. *Journ. of Atmos. Terr. Phys.* 57 (1995), 835.
- [69] Livingston, W. C.: Secular change in equivalent width of C 5380, 1978-1990. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 336.
- [70] van Loon, H. & Labitzke, K.: The 10-12-year atmospheric oscillation. *Meteorol. Zeitschrift* 3 (1994), 259.

- [71] Markson, R. & Muir, M.: Solar wind control of the earth's electric field. *Science* 208 (1980), 979.
- [72] Mason, B. I.: Towards the understanding and prediction of climatic variations. *Quart. J. Roy. Soc.* 102 (1976), 478.
- [73] McKinnon, J. A. : Sunspot numbers 1610-1985. Boulder, World Data Center A for Solar Terrestrial Physics, 1987.
- [74] Mecherikunnel, A. T. & Kyle, H. L.: Solar constant data from Earth Radiation Budget measurements. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 316.
- [75] Metzner, H.: Gibt es einen CO₂-induzierten Treibhaus-Effekt? In: H. Metzner, Hsg.: *Treibhaus-Kontroverse & Ozon- 2 Problem*. Tübingen, Europäische Akademie für Umweltfragen, 1996, 89.
- [76] Michaels, P. J. & Knappenberger, P. C.: The United Nations Intergovernmental Panel on Climatic Change and the scientific "consensus" on global warming. In: Emsley, J., Hsg.: *The global warming debate. The report of the European Science and Environment Forum*. London 1996, 166.
- [77] Mitchell, J. M., Stockton, C. W. & Meko, D. M.: Evidence of a 22-year rhythm of drought in the Western United States related to the Hale solar cycle since the 17th century. In: B. M. McCormac & T. A. Seliga, Hsg.: *Solar- terrestrial influences on weather and climate*. Dordrecht,Reidel, 1979, 125.
- [78] Moge, R.: The cycles in inflation. *Cycles* 44 (1993), 102.
- [79] Moser, J.: *Stable and random motions in dynamical systems*. Princeton University Press, 1973.
- [80] Moss, F. & Wiesenfeld, K.: The benefits of background noise. *Scient. American*, August 1995, 66.
- [81] National Geophysical Data Center, Boulder: X-ray flares. SOLRAD (1968-1974), GOES (1975-present).
- [82] Neeman, B. U., Ohring, G. & Joseph, J. H.: The Milankocich theory and climate sensitivity. Part I: Equilibrium climate model solution for the present surface conditions. *J. Geophys. Res.* 93 (1988), 11153.
- [83] Negendank, J. F. W., Brauer, A. & Zolitschka, B.: Die Eifelmaare als erdgeschichtliche Fallen & Quellen zur Rekonstruktion des Paläoenvironments. *Mainzer geowiss. Mitt.* 19 (1990), 235.
- [84] Nesme-Ribes, E., Baliunas, S. L. & Sokoloff, D.: The stellar dynamo. *Scient. American* August 1996, 51-52.
- [85] Newton, I.: *Mathematische Prinzipien der Naturlehre*. Darmstadt, Wissenschaftliche Buchgesellschaft, 1963, 532.
- [86] Peixoto, J. P. & Oort, A. H.: *Physics of climate*. New York, American Institute of Physics, 1992, 466.
- [87] Peng, L., Chou, M. D. & Arking, A.: Climate studies with a multi-layer energy balance mode. Part I: Model description and sensitivity to the solar constant. *J. Atmosph. Sci.* 39 (1987), 5505.
- [88] Posmentier, E. S., Soon, W. H. & Baliunas, S. L.: Relative impacts of solar irradiance variations and greenhouse changes on climate, 1880-1993. In: Bate, R., Hsg.: *Global Warming. The continuing debate*. Cambridge, The European Science and Environment Forum (ESEF), Cambridge, 1998, 159.
- [89] Potter, G. L. & Cess, R. D.: Background tropospheric aerosols: incorporation within a statistical dynamical climate model. *J. Geophys. Res.* 89 (1984), 9521.
- [90] Priem, H. N. A.: CO₂ and climate: a geologist's view. *Space Science Reviews* 81 (1997), 193. 2

- [91] Ramanathan, V., Barkstrom, B. R. & Harrison, E. F.: Climate and the earth's radiation budget. *Physics Today*, Mai 1989, 22.
- [92] Reiter, R.: Influences of solar activity on the electric potential between the ionosphere and the earth. In: B. M. McCormac & T. A. Seliga, Hsg.: *Solar-terrestrial influences on weather and climate*. Dordrecht, Reidel, 1979, 251.
- [93] Rind, D. & Overpeck, J. T.: Hypothesized causes of decadal-to-century-scale climate variability - climate model results. *Quat. Sci. Rev.* 12 (1993), 357.
- [94] Robock, A: Solar, volcanic, and anthropogenic influences on climate for the past 500 years. Klimakonferenz "Klimaveränderungen - Ursachen & Auswirkungen", 10. -11. November in Bonn.
- [95] Roederer, J. G.: Solar variability effects on climate. In: In: B. Frenzel, Hsg.: *Solar output and climate during the Holocene*. Stuttgart-Jena-New York, Gustav Fischer Verlag, 1995, 3, 17.
- [96] Scherhag, R.: Die explosionsartigen Stratosphärenwärmungen des Spätwinters 1951/52. *Berichte des Deutschen Wetterdienstes der US-Zone Nr. 38* (1952), 51.
- [97] Schlesinger, B. M., Cebula, R. P., Heath, D.F., DeLand, M. T & Hudson, R. D.: Ten years of solar change as monitored by SBUV and SBUV2. In: K. H. Schatten & A. Arking, Hsg.: *Climate impact of solar variability*. Greenbelt, NASA, 1990, 341.
- [98] Schönwiese, C. D.: Northern hemisphere temperature statistics and forcing. Part B: 1579-1980. *Arch. Met. Geoph. Biocl., Ser. B* 35, 164.
- [99] Schönwiese, C. D.: Der Treibhauseffekt: Weltweit wird das Wasser steigen. *Bild der Wissenschaft*, September 1987, 97, 98.
- [100] Schönwiese, C. D.: *Klima im Wandel*. Hamburg, 1994, 99, 161.
- [101] Schostakovitsch, W. B.: Bodenablagerungen der Seen & periodische Schwankungen der Naturerscheinungen. *Mémoires de l'Institut Hydrologique* 13 (1934), 95.
- [102] Schriever, K. H. & Schuh, F.: *Enzyklopädie Naturwissenschaft & Technik*. Weinheim, Zweiburgen Verlag, 1980, 2227.
- [103] Schuurmans, C. J. E.: Effects of solar flares on the atmospheric circulation. In: B. M. McCormac & T. A. Seliga, Hsg.: *Solar-terrestrial influences on weather and climate*. Dordrecht, Reidel, 1979, 105.
- [104] Showstack, R.: Rivers of sunlight, *EOS*, 9. September 1997, 382.
- [105] Singer F.: Globale Erwärmung. In: H. Metzner, Hsg.: *Treibhaus-Kontroverse & Ozon-Problem*. Tübingen, Europäische Akademie für Umweltfragen, 1996, 31.
- [106] *Solar Geophysical Data - comprehensive reports: Monthly counts of grouped solar flares Jan 1965 - Mar 1997*. Number 637, September 1997, 7.
- [107] Soon, W. H., Posmentier, E. S. & Baliunas, S. L.: Inference of solar irradiance variability from terrestrial temperature changes, 1880-1993. An astrophysical application of the sun-climate connection. *The Astrophys. J.* 472 (1996), 891.
- [108] Spencer, R. W., Christy, J. R. & Grody, N. C.: Global atmospheric temperature monitoring with satellite microwave measurements: method and results 1979-1984. *J. Climate* 3 (1990), 1111.
- [109] Stuiver, M., Grootes, P. M. & Braziunas, T. F.: The GISP delta 18O climate record of the past 16,500 years and the role of the sun, ocean, and volcanoes. *Quat. Res.* 44(1995), 341.
- [110] Sussman, G. J. & Wisdom, J.: Chaotic evolution of the solar system. *Science* 257 (1992), 56.
- [111] Svensmark, H. & Friis-Christensen, E.: Variation of cosmic ray flux and global cloud coverage - a missing link in solarclimate relationships. *J. Atm. Sol. Terr. Phys.* 59 (1997), 1225.

- [112] Svensmark, H.: Possible mechanisms of solar activity modulation of the earth's climate. Klimakonferenz "Klimaveränderungen - Ursachen & Auswirkungen", 10. -11. November in Bonn.
- [113] Tinsley, B. A.: Do effects of global atmospheric electricity on clouds cause climatic changes? EOS, 19. August 1997, 341, 344, 349.
- [114] Weber, G.-R.: Smudged fingerprint: The elusive search for a human impact on the climate system. In: Bate, R., Hsg.: Global Warming. The continuing debate. Cambridge, The European Science and Environment Forum (ESEF), Cambridge, 1998, 63.
- [115] Wetherald, R. T. & Manabe, S.: The effects of changing the solar constant on the climate of a general circulation model. J. Atmosph. Sci. 32 (1975), 2044.
- [116] Wiesenfeld, K.: An introduction to stochastic resonance. In: J. R. Buchler & H. E. Kandrup: Stochastic processes in astrophysics. New York, New York Academy of Sciences, 1993, 13.
- [117] Wiin-Christensen, C. & Wiin-Nielsen, A.: Limited predictability and the estimated greenhouse effect. In: Bate, R., Hsg.: Global Warming. The continuing debate. Cambridge, The European Science and Environment Forum (ESEF), Cambridge, 1998, 41.
- [118] Wilcox, J. M.: Solar activity and the weather. J. Atmosph. Terr. Phys. 37 (1975), 237.
- [119] Wolff, C. L. & Hoegy, W. R.: Solar irradiance observed from PVO and inferred solar rotation. In: K. H. Schatten & A. Arking, Hsg.: Climate impact of solar variability. Greenbelt, NASA, 1990, 58.
- [120] Yoshimura, H.: The 110-year periodic modulations of solar magnetic cycle and solar total irradiance and luminosity. STEP GBRSC News, 5 (1995), No.2, 7.