

PUBLICATIONS

A. Books:

1. Sazhin, S.S. (1982) *Natural Radio Emissions in the Earth's Magnetosphere*. Moscow: Nauka (in Russian).
2. Sazhin, S.S. (1993) *Whistler-mode Waves in a Hot Plasma*. Cambridge University Press.
3. Sazhin, S.S. (2014) *Droplets and Sprays*. Springer ISBN: 978-1-4471-6385-5.

B. Editor of:

1. Sazhin, S.S. (Editor) *Geomagnetic Research* No. 27. Soviet Geophysical Committee, 1980 (in Russian).
2. Sazhin, S.S. (Editor). Liperovsky V.A. and Pudovkin M.I.: *Anomalous Resistivity and Double Layers in the Magnetosphere*, Moscow, Nauka, 1983 (in Russian).
3. de Sercey, G. and Sazhin, S.S. (Editors) (2016) *27th European Conference on Liquid Atomization and Spray Systems*. Book of Abstracts, pp. 1-388. ISBN 978-1-910172-09-4.
4. Zeidan, D., Saghir, M.Z., Sazhin, S. S., Darwash, M. (Guest Editors) (2017) The special issue of a selection of papers representative of the Eighth International Conference on Thermal Engineering Theory and Applications – ICTEA 2015, held in Amman, Jordan, 18-21 May, 2015, *International Journal of Engineering Systems Modelling and Simulation*. *SPECIAL ISSUE: THERMAL ENGINEERING THEORY AND APPLICATIONS* **9**(1).
5. Soifer, V., Kazanskiy, N., Korotkova, O., Sazhin, S. (Guest Editors) (2017) *Procedia Engineering*, Volume 201, Pages 1-862, Proceedings of 3rd International Conference ‘Information Technology and Nanotechnology’, ITNT-2017, 25-27 April 2017, Samara, Russia.

C. Book chapters:

1. Sazhin, S.S. (1977) Substorm in geomagnetic pulsations and VLF emissions. In *Physical foundation of forecasting of magnetospheric disturbances* (Authors M.I. Pudovkin, V.P. Kozelov, L.L. Lazutin, O.A. Troshichev, A.D. Chertkov. Editor: S.I. Isaev), Section 5.2.7, pages 265-270, Nauka Publishing House, Leningrad (in Russian).
2. Sazhin, S.S., Walker, S.N. and Woolliscroft, L.J.C. (1991) Observations and theory of whistler-mode waves in the vicinity of the Earth's magnetopause. In *Advances in Space Research*, v. 11(9), pp. 33-36.
3. Sazhin, S.S. (1993) Whistler-mode waves in the Earth's magnetosphere (theory and observations). In ‘Reviews of Radio Science, 1990-1992’, Ed. W.R. Stone, Oxford University Press, pp. 621-630.
4. Sazhin, S.S., Sumner, A.E. and Temme, N.M. (1995) Are relativistic effects significant for the analysis of whistler-mode waves in the Earth's magnetosphere. In *Space Plasmas: coupling between small and medium scale processes*. Geophysical Monograph 86. Editors: M Ashour-Abdalla, T Chang and P Dusenbery. Pages 139-142. Published by the American Geophysical Union.
5. Bykov, V., Goldfarb, I., Gol'dshtein, V., Sazhin, S., Sazhina, E. (2006) Dynamic decomposition of ODE systems: application to modelling of diesel fuel sprays. In ‘Model Reduction and Coarse-Graining Approaches for Multiscale Phenomena’, ed. by A.N. Gorban, N. Kazantzis, Y.G. Kevrekidis, H.C. Ottinger, C. Theodoropoulos. Springer, Berlin–Heidelberg–New York, pp. 81-97.
6. Sazhin, S.S., Elwardany, A., Gusev, I.G., Shishkova, I.N. and Heikal, M. (2010) Modelling of fuel droplet heating and evaporation: recent results and unsolved problems. *Engineering Research Anniversary volume honouring Amalia and Miklos Ivanyi, Pollack Mihaly Faculty of Engineering, University of Pecs, October 25-26*, pp. B:197-B:209.
7. Sazhin, S.S. (2012) Memoirs of a student, junior researcher and private scientist, *Memoirs of the graduates of the faculty of physics, St Petersburg State University, Issue 1*, Edited by A. Lavrov and V. Fedorov, pp. 497-501. Published by FGBU ‘PIYaF’, ISBN 978-5-86763-305-9.

In press

8. Sazhin, S.S. (2017) Modelling of droplet heating and evaporation. In ‘Frontiers in Droplet and Spray Research for Combustion and Propulsion’, Edited by S Basu, Springer.

D. Papers (refereed international journals):

1. Sazhin, S.S. (1974) Interpretation of the resonant interaction of charged particles with an elliptically polarized plasma wave, *Geomagnetism and Aeronomy* (English translation), **14**(3), 460-462.
2. Sazhin, S.S. (1976) Electrostatic wave trapping in the magnetosphere of the Earth, *Geomagnetism and Aeronomy* (English translation), **16**(3), 337-338.

3. Sazhin, S.S. (1976) Effect of an external transverse electric field on the character of whistler-mode polarization, *Geomagnetism and Aeronomy* (English translation), **16**(6), 582-583.
4. Sazhin, S.S. (1977) Non resonant interaction of whistlers with electrons, *Soviet Physics. Technical Physics*, **22**(1), 142-144.
5. Sazhin, S.S. (1977) Magnetospheric capture of electrostatic waves at frequencies below the proton plasma frequency, *Radiophysics and Quantum Electronics*, **20**(6), 652-653.
6. Ponyavin, D.I., Pudovkin, M.I. and Sazhin, S.S. (1977) Self-consistent parallel electric field in the magnetosphere of the Earth, *Geomagnetism and Aeronomy* (English translation), **17**(3), 323-325.
7. Sazhin, S.S. and Titova, E.E. (1977) Dynamic spectrum of VLF chorus events calculated from the data recorded at Lovozero station data, *Cosmic Research* (English translation), **15**(5), 684-685.
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9. Sazhin, S.S. (1978) A model of quasiperiodic VLF emissions, *Planet. Space Sci.*, **26**(5), 399-401.
10. Sazhin, S.S. (1978) On the conductivity of the solar wind plasma, *Letters to the Astronomical J.*, **4**(7), 321-322 (in Russian).
11. Sazhin, S.S. and Verzhinina, N.I. (1978) Estimation of the large scale magnetospheric electric field from the frequency drift of bursts of VLF emissions, *Cosmic Research* (English translation), **16**(3), 376-377.
12. Ponyavin, D.I. and Sazhin, S.S. (1978) Development of whistler cyclotron instability in a magnetospheric plasma with allowance for the self-consistent parallel electric field, *Geomagnetism and Aeronomy* (English translation), **18**(4), 503-4.
13. Sazhin, S.S. (1979) Spontaneous polarization of a turbulent magnetized plasma, *Soviet Physics. Technical Physics*, **24**(3), 371-373.
14. Ponyavin, D.I. and Sazhin, S.S. (1979) Whistler damping near the electron gyrofrequency in a plasma with components at different temperatures, *Soviet Physics. Technical Physics*, **24**(4), 515-516.
15. Pudovkin, M.I. and Sazhin, S.S. (1979) Pedersen conductivity of the magnetospheric plasma, *Geomagnetism and Aeronomy* (English translation), **19**(1), 55-56.
16. Sazhin, S.S., Ponyavin D.I. and Varshavskii, S.P. (1979) Some features of whistler propagation in magnetospheric plasma. *Radiophysics and Quantum Electronics*, **22**(7), 547-550.
17. Likhter, Ja.I. and Sazhin, S.S. (1980) On the frequency shift in modulated VLF emissions. *J. Atmos. Terr. Physics*, **42**(4), 381-384.
18. Sazhin, S.S., Sizova, L.Z. and Larkina, V.I. (1980) Latitude dependence of the intensity of VLF emissions, *Geomagnetism and Aeronomy* (English translation), **20**(2), 239-240.
19. Sazhin, S.S. (1981) Some studies of whistler-mode propagation in the magnetospheric plasma, *J. Atmos. Terr. Physics*, **43**(2), 139-146 (Errata p. 373).
20. Sazhin, S.S., Kobeleva, O.A., Sazhina, E.M. and Varshavskii, S.P. (1981) Propagation of whistlers at a small angle to the magnetic field in hot anisotropic plasma. *Radiophysics and Quantum Electronics*, **24**(8), 628-634.
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23. Sazhin, S.S. and Sazhina, E.M. (1982) Oblique whistler-mode propagation in a hot anisotropic plasma, *J. Plasma Physics*, **27**(2), 199-204.
24. Sazhin, S.S. and Varshavski, S.P. (1982) Whistler trapping in the vicinity of the plasmopause, *Geomagnetism and Aeronomy* (English translation), **22**(2), 192-195.
25. Sazhin, S.S. (1983) Whistler-mode propagation at frequencies near the electron gyrofrequency, *J. Plasma Physics*, **29**(2), 217-222.
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I. Translations

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2. Tuvya Zaretsky *Turning to God*, Intervarsity Press. Translated from English into Russian (1990) by S.S. Sazhin and E.M. Sazhina. Published by Loimaan Kirjapaino Oy, ISBN 0-87784-064-4.