

Marchenko Aleksey, UNIS, 2016

List of Publications:

Papers in International journals:

1. Marchenko, A.V. and Semenov, A.,Yu.,1993. Formation of oscillatory vortex flows in a marginal sea ice zone. BRAS Phys./Suppl. Physics of Vibrations, 57(4): 172-183.
2. Ilichev, A.T. and Marchenko, A.V., 1995. Nonlinear waveguides in resonance three-wave interaction in an ideal fluid with surface effects. BRAS Phys./Suppl. Physics of Vibrations, 59(2): 98-107.
3. Marchenko, A.V., 1996. Resonance excitation of waves in the ice channel. BRAS Phys./Suppl. Physics of Vibrations, 60(1): 1-12.
4. Bogorodsky, P.V., Marchenko, A.V., 1996. Convective gyre formation in the stratified ocean. BRAS Phys./Suppl. Physics of Vibrations, 60(1): 13-22.
5. Marchenko, A.V., 1997. Stability of elastic-gravity waves. BRAS Phys./Suppl. Physics of Vibrations, 61(1): 185-195.
6. Marchenko, A.V. and Voliak, K.I., 1997. Surface wave propagation in shallow water beneath an inhomogeneous ice cover. J. Phys. Oceanogr., 27: 1602-1613.
7. Marchenko, A., 1999. Parametric excitation of flexural-gravity edge waves in the fluid beneath an elastic ice sheet with a crack. European Journal of Mechanics, B/Fluids,18(3): 511-525.
8. Kasajima Y., Marchenko A., 2001. On the excitation of resonant double Kelvin waves in the Barents Sea Opening. Polar Research, 20(2): 241-248.
9. Kowalik Z., Marchenko A., 2002. Tidal motion enhancement around islands. 2001. J. Marine Res., 60(4), 551-581
10. Marchenko, A.V., 2002. Nonlinear effects at resonant excitation of capillary-gravity waves. Physics of Vibrations, 9(4), 224-234.
11. Marchenko, A., 2003. Modeling of the formation of long grooves in the seabed by grounded ice keels. Journal of Ship and Ocean Technology, the Society of Naval Architects of Korea, 2003, Vol. 7, N 4, 1-15.
12. Marchenko, A. 2003. Nonlinear Phenomena in Resonant Excitation of Flexural-Gravity Waves. Journal of Ship and Ocean Technology, the Society of Naval Architects of Korea, 2003, Vol. 7, N 3, 1-12
13. Marchenko, A., and Makshtas, A., 2005. A dynamic model of ice ridge build up. Cold Regions Science and Technology, Vol 41/3, pp. 175-188.
14. Shutilin, S.V., Makshtas, A.P., Motoyoshi, I., Marchenko, A.V., and R.V. Bekryaev, 2005. Dynamic -Thermodynamic Sea Ice Model: Ridging and Its Application to Climate Study and Navigation. Journal of Climate, Vol. 18, N 18, 3840-3855.
15. Marchenko, A.V., Zubakin, G.K., Gorbatsky, G.K., 2005. Estimation of internal stresses in drifting ice cover of Barents Sea. Physics of Wave Phenomena, Vol. 13, N3, 148-160.
16. Marchenko, A.2008. Thermodynamic consolidation and melting of sea ice ridges. Cold Regions Science and Technology, Vol. 52, pp. 278-301.

17. Løset, S., and A. Marchenko, 2009. Field Studies and Numerical Simulations of Ice Bustles on Vertical Piles. *Cold Regions Science and Technology*, 58, 15-28.
18. Kvamstad, B., Fjortoft, K.E., Bekkadal, F., Marchenko, A.V., Ervik, J.L., 2009. A Case Study from an Emergency Operation in the Arctic Seas, *TransNav, the International Journal on Marine Navigation and Safety of Sea Transportation*, Vol. 3, No. 2, 153-159.
19. Eik, K., and A. Marchenko, 2010. Model tests of iceberg towing. *Cold Regions Science and Technology*, 61, 13-28.
20. Morozov, E.G., Muzylev, S.V., Shestov, A.S., Marchenko, A.V., 2011. Short-period internal waves under an ice cover in Van Mijen Fjord, Svalbard. *Advances in Meteorology*, Volume 2011, Article ID 573269, doi:10.1155/2011/573269
21. Marchenko, A.V., Morozov, E.G., Muzylev, S.V., 2012. A tsunami wave recorded near a glacier front. *Natural Hazards and Earth System Science*, 12, 415-419.
22. Marchenko, A., Eik, K., 2012. Iceberg towing on open water: mathematical modelling and analysis of model tests. *Cold Regions Science and Technology*, 73, 12-31.
23. Marchenko, A.V., Eik K., 2012. Methods of Iceberg Towing, *TransNav, the International Journal on Marine Navigation and Safety of Sea Transportation*, Vol. 6, No. 4, 507-516.
24. Morozov, E.G., Marchenko, A.V., 2012. Short period internal waves in an Arctic fjord (Spitsbergen), *Atmospheric and Oceanic Physics*. 48, 4, 401-408. DOI: 10.1134/S0001433812040123.
25. Bunkin, A.F., Klinkov, V.K., Lednev, V.N., Lushnikov, D.L., Marchenko, A.V., Morozov, E.G., Pershin, S.M., Yulmetov, R., 2012. Remote sensing of seawater and drifting ice in Svalbard fjords by compact Raman lidar, *Applied Optics*, 51, 5477-5485.
26. Marchenko, A.V., Morozov, E.G., Muzylev, S.V., 2013. Measurements of sea-ice flexural stiffness by pressure characteristics of flexural-gravity waves. *Annals of Glaciology*, 54(64), 51-60. doi:10.3189/2013AoG64A075.
27. Marchenko, A., Kvamstad, B., Fjortoft, K., Holmen, J., 2013. Characteristics of ice drift in the western Barents Sea. *Fram Forum*. 34-38.
28. Marchenko, A.V., Morozov, E.G., 2013. Asymmetric tide in Lake Vallunden (Spitsbergen), *Nonlinear Processes in Geophysics*. 20, 935-944. doi:10.5194/npg-20-935-2013,2013.
29. Sukhorukov, S., Marchenko, A., 2014. Geometrical stick–slip between ice and steel. *Cold Regions Science and Technology*, 100, 8-19.
30. Bogorodskiy, P.V., Marchenko, A.V., 2014. Thermodynamic effects accompanying freezing of two water layers separated by a sea ice sheet. *Oceanology*, Vol. 54, N2, 152-159.
31. Morozov, E.G., Marchenko, A.V., Fomin, Yu. V., 2015. Supercooled water near the glacier front in Spitsbergen, *Atmospheric and Oceanic Physics*. 51, 2, 203-207. DOI: 10.1134/S0001433815020115.
32. Collins, C.O., Rogers, W.A., Marchenko, A., Babanin, A.V., 2015. In situ measurements of an energetic waves event in the Arctic marginal ice zone. *Geoph. Res. Letters*, 42, 6, 1863-1870.

33. Kowalik, Z., Marchenko, A., Brazhnikov, D., Marchenko, N., 2015. Tidal currents in the western Svalbard Fjords. *Oceanologia*. 57, 318-327.
34. Shestov, A.S., Marchenko, A.V., 2016. Thermodynamic consolidation of ice ridge keels in water at varying freezing points. *Cold Regions Science and Technology*, 121, 1-10.
35. Shestov, A.S., Marchenko, A.V., 2016. The consolidation of saline ice blocks in water of varying freezing points: Laboratory experiments and computer simulations. *Cold Regions Science and Technology*, 122, 71-79.
36. Marchenko, A., Lishman, B, Wrangborg, D., Thiel. T., 2016. Thermal expansion measurements in fresh and saline ice using fiber optic strain gauges and multi-point temperature sensors based on Bragg gratings. Hindawi Publishing Corporation, *Journal of Sensors*, Vol. 2016, ID 5678193, 13 pages <http://dx.doi.org/10.1155/2016/5678193>
37. Yulmetov, R., Marchenko, A., Loset, S., 2016. Iceberg and sea ice drift tracking and analysis off north-east Greenland. *Ocean Engineering*, 123, 223-237.
38. Marchenko A, Lishman B., 2017. The influence of closed brine pockets and permeable brine channels on the thermo-elastic properties of saline ice. *Phil.Trans. R. Soc. A* 375: 20150351.
39. Marchenko, A., Morozov, E., Marchenko, N., 2017. Supercooling of sea water near the glacier front in a fjord. *Earth Science Research*, 6(1).
40. Marchenko, A.V., Morozov, E.G., 2016. Seiche oscillations in Lake Valunden (Spitsbergen). *Russian Journal of Earth Sciences*, Vol. 16, ES2003, doi:10.2205/2016ES000567
41. Marchenko, A.V., Morozov, E.G., 2016. Surface manifestation of the waves in the ocean covered with the ice. *Russian Journal of Earth Sciences*, Vol. 16, ES1001, doi:10.2205/2016ES000561

Papers in Russian reviewed journals:

1. Marchenko, A.V. and Sibgatullin, N.R., 1986. On the resonance interaction of waves in a heavy fluid beneath an elastic plate. *Gerald of Moscow State University, Ser.1. Mathem. & Mech.*, 4: 94-97.
2. Marchenko, A.V., 1987. Some internal wave soliton diffusion effects over an uneven bottom. *Fluid Dynamics I*, V. 22, 1: 95-98.
3. Marchenko, A.V. and Sibgatullin, N.R., 1987. Evolution of wave packets in three-wave interaction in heavy liquid under an ice covering. *Fluid Dynamics, Consultants Bureau, An Imprint of Springer Verlag New York LLC*, V 22, 6: 872-879.
4. Marchenko, A.V., 1988. Long waves in shallow liquid under ice cover. *J. Applied Mathematics and Mechanics (PMM)*2, 52 (2): 180-183.

¹ Publisher: Consultants Bureau, An Imprint of Springer Verlag New York LLC

² Publisher: Elsevier Science

5. Marchenko, A.V. and Sibgatullin, N.R., 1988. Capture of tidal waves by under water obstacle. *Gerald of Moscow State University, Ser.1. Mathem. & Mech.*, 1: 51-58. (in Russian)
6. Il'ichev, A.T. and Marchenko, A.V., 1989. Propagation of long nonlinear waves in a ponderable fluid beneath an ice sheet. *Fluid Dynamics*, V 24, 1: 73-79.
7. Gol'dstein, R.V. and Marchenko, A.V., 1989. The diffraction of plane gravitational waves by the edge of an ice cover. *J. Applied Mathematics and Mechanics (PMM)*, 53 (6): 731-736.
8. Marchenko, A.V. and Sibgatullin, N.R., 1990. Resonance excitation of long waves in two-layer medium by variable pressure on the free surface. *Fluid Dynamics*, V. 25, 2: 240-247.
9. Marchenko, A.V. and Prokhorov, I.V., 1991. Linear waves in fluid flow with constant vorticity located under an ice blanket. *J. Applied Mathematics and Mechanics (PMM)*, 55 (2): 193-200.
10. Marchenko, A.V., 1991. Resonant excitation of waves in a heavy liquid beneath viscoelastic plate. *J. Applied Mechanics and Technical Physics*, V. 32, 3: 395-402.
11. Marchenko, A.V. and Shkira, V.I., 1991. Theory of two-dimensional nonlinear waves in liquid covered by ice. *Fluid Dynamics*, V. 26, 4: 580-587.
12. Marchenko A.V., 1992. On the propagation of discontinuities in a drifting ice cover. *J. Applied Mathematics and Mechanics (PMM)*, 56 (3): 346-358.
13. Marchenko, A.V., 1992. Calculation of wind currents in the edge zone of sea ice sheet. *Fluid Dynamics*, V. 27, 6: 859-866.
14. Bogorodsky, P.V., Marchenko, A.V., Podgorny, I.A., 1993. On the problem of the formation of the Greenland Sea convective gyre. *Physical Oceanography*, V. 4, 1: 83-88.
15. Marchenko, A.V., 1993. Surface wave diffraction at a crack in sheet ice. *Fluid Dynamics*, V. 28, 2: 230-237.
16. Gol'dstein, R.V., Marchenko, A.V. and Semenov, A.Yu., 1994. Boundary waves in liquids under an elastic plate with a crack. *Doklady Physics*, Vol. 39, 813-815.
17. Marchenko, A.V. and Semenov, A.Yu., 1994. Edge waves in a shallow fluid beneath an fractured elastic plate *Fluid Dynamics*, V. 29, N 4: 589-592.
18. Marchenko A.V., 1994. A model of a drifting ice cover. *J. Applied Mathematics and Mechanics (PMM)*, 58(1): 43-58.
19. Marchenko A.V., 1995. A Hamiltonian approach to the investigation of the potential motions of an ideal fluid. *J. Applied Mathematics and Mechanics (PMM)*, 59(1): 93-98.
20. Marchenko, A.V. and Semenov, A.Yu., 1995. Computing the definite integrals of the Wiener-Hopf method by summing powers of residues. *Comp. Maths. Math. Phys.*, 35(3): 357-362.
21. Marchenko, A.V., 1995. Natural vibrations of a hummock ridge in an elastic ice sheet floating on the surface of an infinitely deep fluid. *Fluid Dynamics*, 30(6): 887-893.
22. Marchenko, A.V., 1996. Swell wave propagation in an inhomogeneous ice sheet. *Fluid Dynamics*, 31(5): 761-767.

23. Marchenko, A.V., 1997. Flexural-gravity wave diffraction at linear irregularities in sheet ice. *Fluid Dynamics*, 32(4): 548-560.
24. Marchenko, A.V., 1997. Resonance interactions of waves in an ice channel. *J. Applied Mathematics and Mechanics (PMM)*, 61(6): 931-940.
25. Ilichev, A.T. and Marchenko, A.V., 1997. The formation of nonlinear wave guides in the resonant interaction of three surface waves. *J. Applied Mathematics and Mechanics (PMM)*, 61(2): 183-193.
26. Goldstein, R.V. and Marchenko, A.V., 1999. The choice of constitutive relations for an ice cover. *J. Applied Mathematics and Mechanics (PMM)*, 63(1): 73-78.
27. Marchenko, A.V., 1999. Stability of flexural-gravity waves and quadratic interactions. *Fluid Dynamics*, 34(1): 78-86.
28. Marchenko, A.V., 1999. Stability of flexural-gravity waves and cubic interactions. *Fluid Dynamics*, 34(2): 235-242.
29. Marchenko, A.V., 1999. The floating behaviour of a small body acted upon by a surface wave. *J. Applied Mathematics and Mechanics (PMM)*, 63(3): 471-478.
30. Marchenko, A., 2001. Model for the formation of hummocks in a drifting ice cover. *Physics-Uspekhi*, 44(3), 315-320.
31. Marchenko, A., 2002. Modeling of sea ice ridging. *Advances in Mechanics*. V. 1, N 3, 67-129. (in Russian)
32. Marchenko, A.V. 2004. Nonlinear phenomena at resonant excitation of flexural-gravity waves. *Bulletin of the Russian Academy of Sciences, Physics*, V. 68, No. 12, 1962-1970.
33. Marchenko, A.V. and E.B. Karulin, 2005. Method for the calculations of the loads from drifting ice on wide construction. *Transactions of the Krylov Shipbuilding Research Institute, Marine Ice Technology Issue*. 24 (308), 27-40. (in Russian)
34. Marchenko, A.V., 2006. Method of calculation of ice loads by ice piling up on the wall. *J. Applied Mathematics and Mechanics (PMM)*, 70:387-398.
35. Bogorodskii, P.V., Marchenko, A.V., and A.V. Pnyushkov, 2007. Thermodynamics of freezing puddles in the autumn-winter period. *Oceanology*, 47 (5), 636-646.
36. Marchenko, A.V., 2007. Modelling of consolidation and melting of ice ridges. *Transactions of the Krylov Shipbuilding Research Institute, Marine Ice Technology Issue*. 34 (318), 97-138. (in Russian)
37. Marchenko, A.V., 2010. Stability of icebergs towing. *Transactions of the Krylov Shipbuilding Research Institute. Marine Ice Technology Issue*. 51 (335), 69-82. ISBN 0869-8422. (in Russian)
38. Marchenko, A.V., Morozov, E.G., Muzylev, S.V., and A.S. Shestov, 2010. Interaction of short internal waves with the ice cover in an Arctic fjord. *Oceanology*, Vol. 50, N. 1, pp. 18-27. ISSN 0001-4370
39. Bogorodsky, P.V. Marchenko, A.V. Pnyushkov, and S.A.Ogorodov, 2010. Formation of fast ice and its influence on the coastal zone of the Arctic seas. *Oceanology*, ol. 50, N 3, pp. 317-326. ISSN 0001-4370
40. Shestov, A.S., Marchenko, A.V., Ogorodov, S.A., 2011. Mathematical modelling of ice actions on the seabed of the Baydaratskaya Bay of the Kara Sea. *Transactions of the Krylov Shipbuilding Research Institute*, 63 (347), 105-118. ISBN 0869-8422.

41. Shestov, A.S., Marchenko, A.V., 2011. Thermodynamic consolidation of ice keels in the water at the varying freezing point. Transactions of the Krylov Shipbuilding Research Institute, 63 (347), 119-129. ISBN 0869-8422.
42. Karulin, E.B., Karulina, M.M., Shestov, A.S., Marchenko, A.V., 2011. Investigation of sea ice flexural strength in the fjords of the West Spitsbergen. Transactions of the Krylov Shipbuilding Research Institute, 63 (347), 131-142. ISBN 0869-8422.
43. Morozov, E.G., Marchenko, A.V., 2012. Short-period internal waves in an Arctic fjord (Spitsbergen). Izvestiya RAS, Atmospheric and Oceanic Physics, Vol. 48, N 4, 401-408.
44. Marchenko, A.V., Instanes, A., Finset, J., Onischenko, D.A., 2013. Monitoring of thermodynamic state of soil near Arctic pipeline landfall. Vesti Gazovoy Nauki: Modern approaches and advanced technologies in projects of development of Russian offshore oil-and-gas fields. Moscow: Gazprom VNIIGAZ, N 3(14), 202-211.
45. Muzylev, S., Macheret, Yu. J., Morozov, E.G., Lavrentiev, I.I., Marchenko, A.V., 2013. Oscillations of ice cover and sea water pressure near the front of the Tuna Glacier in Spitsbergen. Led i Sneg, N 4, 119-124.
46. Ogorodov, S., Arkhipov, V., Kokin, O., Marchenko, A., Overduin, P., Forbes, D., 2013. Ice effect on coast and seabed in Baydaratskaya Bay, Kara Sea. Geography Environment Sustainability, N 3, pp. 21-37.
47. Bogorodskiy, P.V., Makshtas, A.P., Marchenko, A.V., Kustov, V.Yu., 2014. The role of coal pollution in intensification of the fast ice melting in the Sveabukta bay (Van Mijenfjorden, Spitsbergen). Ice and Snow. N1 (125). (in Russian)
48. Karulin, E.B., Marchenko, A.V., Karulina, M.M., Sakharov, A.N., Chistyakov, P.V., Verbitskaya, M.Yu., Ignatieva, E.D., 2015. Compression testing of sea ice by penetrating the ice sheet with a semi-cylindrical indenter. Process numerical simulation. Transactions of the Krylov Shipbuilding Research Institute, 86 (370), 75-86. ISBN 0869-8422. (in Russian)
49. Marchenko, A.V., 2015. The influence of added masses on rotation and towing of drifting icebergs, Transactions of the Krylov Shipbuilding Research Institute, 86 (370), 101-116. ISBN 0869-8422. (in Russian)

Papers in books:

1. Dorogokupets, S.A., Marchenko, A., 1989. On the influence of long waves on Weddell sea ice dynamics. Applied numerical analysis and mathematical modeling. Vladivostok, 112-122.
2. Bogorodsky, P.V., Marchenko, A.V., 1992. On the formation of vertical structure of Greenland convective gyre. Proceedings of the Arctic and Antarctic Research Institute, 430: 138-143. (in Russian)
3. Makshtas, A.P., Marchenko, A.V., 1994. On the modelling of the structure of ice cover in marginal ice zones of sea drifting ice. The regularities of large scale processes in Norwegian energy active zone and adjacent regions. St.-Petersburg: Gidrometeoizdat, pp.150-163. (in Russian)

4. Bogorodsky, P.V., Marchenko, A.V., 1994. Modeling of Greenland convective gyre. The regularities of large scale processes in Norwegian energy active zone and adjacent regions. St.-Petersburg: Gidrometeoizdat, pp.101-114. (in Russian)
5. Marchenko, A.V., 1988. Various motion regimes of a floating body under the effect of surface waves. Modern methods of continuum mechanics, Proceedings of the Steklov Institute of Mathematics, 1998, 223: 166-172.
6. Marchenko, A., 1999. On hamiltonian approach for the investigation of potential motions of ideal fluid. Wave dynamics at the fluid surface, Moscow: Nauka. Fizmatlit, 28-36. (in Russian)
7. Marchenko, A. and Dias, F., 1999. On steady solutions of forced nonlinear Schrodinger equation. Wave dynamics at the fluid surface, Moscow: Nauka. Fizmatlit, 141-152. (in Russian)
8. Marchenko, A., 1999. Flexural-gravity waves. Wave dynamics at the fluid surface, Moscow: Nauka. Fizmatlit, 65-111. (in Russian)
9. Marchenko, A., Makshtas, A., 2001. Ice ridging over various space scales. IUTAM Symposium on Scaling Laws in Ice Mechanics and Ice Dynamics. J.P.Dempsey and H.H.Shen (ed.), Kluwer Academic Publishers, 103-114.
10. Marchenko, A., 2002. Motion of ice floes and floating ridges under the influence of surface gravity waves. Surface and Internal Waves in Arctic Seas. Lavrenov, I., Morozov, E. (ed), St.-Petersburg, Gidrometeoizdat, 93-123. (in Russian)
11. Marchenko, A., 2003. The influence of the consolidation of sea ice ridge on atmosphere –ocean heat fluxes. In The Studies of Climate Changes and Atmosphere – Ocean Interaction in Polar Regions, Proceedings of the Arctic and Antarctic Research Institute, V. 446, St.-Petersburg, Gidrometeoizdat, 150-164. (in Russian)
12. Goldstein, R., Marchenko, A. 2004. Edge waves in the fluid beneath an elastic sheet with linear nonhomogeneity. In “Surface waves in anisotropic and laminated bodies and defects detection”. R.V.Goldstein and G.A.Maugin (eds.). Kluwer Academic Pub., Netherlands, 143-157.
13. Marchenko A.V., Zubakin G.K., Gudoshnikov Yu.P., Makshtas A.P., 2004. Thermodynamic consolidation of ice ridges. In Complex Investigations and Explorations of Ice and Hydro-Meteorological Phenomena and Processes on the Arctic Shelf., G.K.Zubakin (ed), Proceedings of the Arctic and Antarctic Research Institute, V. 449, St.-Petersburg, Gidrometeoizdat, 64-89. (in Russian)
14. Marchenko, A.V., 2006. Models of sea ice ridging. In book Ice formations in seas of Western Arctic, G.K.Zubakin (Ed.), Arctic and Antarctic Research Institute, St.-Petersburg, pp.196-239.
15. Makshtas, A.P., Marchenko, A.V., and S.V. Shutilin, 2007. Methods for the calculation of ice ridging in the models of sea ice dynamics. Proceedings of the Arctic and Antarctic Research Institute, V. 447, St.-Petersburg, Gidrometeoizdat, 169-187. (in Russian)
16. Gorbatsky, V.V., and A.V.Marchenko, 2007. Estimates of internal stresses in drifting sea ice. Proceedings of the Arctic and Antarctic Research Institute, V. 447, St.-Petersburg, Gidrometeoizdat, 188-209. (in Russian)
17. Bogorodsky, P.V., Marchenko, A.V., and A.V.Pniushkov, 2007. The main features of melt ponds freezing on multi-year Arctic sea ice (by observations

- during the 23-rd cruise of RV “Akademik Fedorov”). Problemi Arktiki i Antarktiki, St.-Peterburg, AARI, 75, 85-98. (in Russian)
18. Bogorodsky, P.V., Marchenko, A.V., and A.V.Pniushkov, 2007. Features of land fast ice forming at freezing seas coastal zone. Problemi Arktiki i Antarktiki, St.-Peterburg, AARI, 77, 17-27. (in Russian)
 19. Ogorodov, S.A., Marchenko, A.V., Tsvetsinsky, A.S., Shestov, A.S., and V.V. Arkhipov, 2008. The influence of ice formations on the bottom and seashore surface forms in the Baydaratskaya Bay of the Kara Sea: natural investigations and mathematical modeling. Ocean and Sea Research, Proceedings of the State Oceanographic Institute, E.V.Borisov (ed.), Moscow 2008, 211, 152-177. (in Russian)
 20. Ivanov, B.V., Marchenko, A.V., and A.M. Bezgreshnov, 2008. The features of on a surface of one-year ice in North-East part of the Barents Sea. Problemi Arktiki i Antarktiki, St.-Peterburg, AARI, 78(1), 129-133. (in Russian)
 21. Marchenko, A.V., 2010. Thermo-mechanical properties of materials. In Cold Regions Science and Marine Technology, [Ed.Hayley Shen], in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford ,UK, [<http://www.eolss.net>].

Books:

1. Marchenko, A., 2003. Continuum mechanics and sea ice cover modelling. Technical report NO. TR 2003-1, Research Institute of Marine Systems Engineering, College of Engineering, Seoul National University, June 2003, 103 p. (lecture course for graduated students)
2. Marchenko, A., 2003. Methods of continuum mechanics for the study of floating ice problems. Technical report NO. TR 2003-2, Research Institute of Marine Systems Engineering, College of Engineering, Seoul National University, June 2003, 105 p. (lecture course for under-graduated students)
3. Marchenko, A., 2003. Ice mechanics. Technical report NO. TR 2003-3, Research Institute of Marine Systems Engineering, College of Engineering, Seoul National University, June 2003, 91 p. (lecture course for graduated students)

Papers in Proceedings of Conferences (from 1995):

1. Goldstein, R.V., and A.V. Marchenko, 1995. Free vibrations of an elastic ice cover with cracks, channels and ice ridges. 13th International Conference on Port and Ocean Engineering under Arctic Condition (POAC'95), August 15-18, 1995 Murmansk, Russia, V.1, 171-180.
2. Marchenko, A., Purini, R., and K., Voliak, 1995. Filtering surface waves by ice floes. 13th International Conference on Port and Ocean Engineering under Arctic Condition (POAC'95), August 15-18, 1995 Murmansk, Russia, V.3, 134-142.
3. Goldstein, R.V. and A.V. Marchenko, 1997. On a choice of rheological relations for equations of ice cover dynamics. Proc. OMAE, Arctic\Polar Technology ASME, 1997, 4: 451-460.

4. Goldstein, R.V., Marchenko, A.V., 1998. On large scale modeling of sea ice cover taking into account accumulation of cracks and cracklike faults. Ice in surface waters, Shen (ed.), 1998 Balkema, Rotterdam, 637-642.
5. Marchenko, A.V., Voliak, K.I., 1998. Flotage of a small body on the surface waves. Ice in surface waters, Shen (ed.), 1998 Balkema, Rotterdam, 327-330.
6. Dias, F., Marchenko, A., 1998. On the theory of resonance generation of flexural-gravity waves by moving pressure field. Ice in surface waters, Shen (ed.), 1998 Balkema, Rotterdam, 321-326.
7. Beloshapkov, A., Marchenko, A., 1998. Mathematical modeling of ice bottom scouring in Baydaratskaya Bay. Ice in surface waters, Shen (ed.), 1998 Balkema, Rotterdam, 345-352.
8. Beloshapkov, A., Marchenko, A. and Dlugach, A., 1998. Seabed exaration by ice formations. Proceedings of Ice Scour and Arctic Marine Pipelines Workshop held at 13th Int. Symp. on Okhotsk Sea & Sea Ice, 1998, C-CORE: 101-120.
9. Marchenko, A., 1999. Parametric excitation of flexural-gravity waves in the vicinity of ice crack. Proc. of the 15th Int. Conf. On Port and Ocean Eng. Under Arctic Conditions (POAC'99), Helsinki Univ. of Technology, Vol.1: 106-121.
10. Arhipov, B., Marchenko, A., Solbakov, V., 1999. Development of the block "Ice scouring" in Specialized Information System "Yamal". Proc. of the 15th Int. Conf. On Port and Ocean Eng. Under Arctic Conditions (POAC'99), Helsinki Univ. of Technology, Vol. 2: 529-536.
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12. Marchenko, A., 1999. Ice ridge formation due to the interaction of drifting and stationary ice fields. . Proc. of the 15th Int. Conf. On Port and Ocean Eng. Under Arctic Conditions (POAC'99), Helsinki Univ. of Technology, Vol. 3: 1024-1038.
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