

## REFERENCES

- Aleshkov, Yu. Z. 1996. Oceanic Currents and Waves. Leningrad, LSU.
- Алешков Ю.З. Течения и волны в океане. Ленинград, ЛГУ, 1996.
- Bukhanovsky, A.V., Lopatoukhin, L.I., Rozhkov, V.A. 1997. Approaches to , experiences of , software for , and examples of wave climate computation. Proceedings of the Third International Conference on Russia Arctic Off-shore "RAO-97", St. Petersburg.
- Бухановский А.В., Лопатухин, Л.И., Рожков В.А. Подходы, опыт, программное обеспечение и примеры расчета волнового климата. Труды третьей международной конференции: «Освоение шельфа арктических морей России». С.Пб. 1997, с. 583-598.
- Bukhanovsky, A.V., Lopatoukhin, L.I., Rozhkov, V.A. 1998. Highest wave estimates using probabilistic models. Proceedings of the Second International Conference on Ship Design "ICS'98, St. Petersburg.
- Бухановский А.В., Лопатухин Л.И., Рожков В.А. Оценки высот наибольших волн по вероятностным моделям. Труды второй Международной конференции по судостроению. - ICS'98. Секция С, Санкт-Петербург, 1998, с.270-277.
- Bukhanovsky, A.V., Lopatoukhin, L.I., Rozhkov, V.A. 1998. Climatic wind wave spectra. Proceedings of the Second International Conference on Ship Design "ICS'98, St. Petersburg.
- Бухановский А.В., Лопатухин Л.И., Рожков В.А., Дегтярев А.Б., Климатические спектры ветрового волнения, Труды второй международной конференции по судостроению ICS'98, секция В, СПб, 1998, с.375-382
- Bukhanovsky, A.V., Lopatoukhin, L.I., Rozhkov, V.A., Divinsky, B.V., Kos'yan R.D. 2000. A classification of wind waves in the Black Sea using instrumental data. "Oceanologia", No. 2.
- Бухановский А.В., Лопатухин Л.И., Рожков В.А., Дивинский Б.В., Косьян Р.Д., Типизация ветрового волнения Черного моря по инструментальным данным. "Океанология", 2000, N 2
- Wind and waves in the oceans and seas. A reference book. Register of shipping USSR. Eds. Davidan I.N., Lopatoukhin, L.I., Rozhkov, V.A., Leningrad, "Transport" Publisher, 1974.
- Ветер и волны в океанах и морях. Справочные данные. Регистр СССР/Ред. И.Н. Давидан, Л.И. Лопатухин. В.А. Рожков. 1974, Л. «Транспорт», 359с.
- Davidan I.N., Lopatoukhin, L.I., Rozhkov, V.A. 1978, Wind waves as random hydrodynamic process. Leningrad, "Gidrometeoizdat" Publisher, 287p.
- Давидан И.Н., Лопатухин Л.И. Рожков В.А. Ветровое волнение как вероятностный гидродинамический процесс. Л. «Гидрометеоиздат», 1978, 287с.
- Gloukhovsky B.H. 1966. Investigations of wind waves. L. "Gidrometeoizdat" Publisher, 284p.
- Гдуховский Б.Х. Исследования морского ветрового волнения. Л. Гидрометеоиздат, 1966, 284с.
- Davidan I.N., Lopatoukhin, L.I., Rozhkov, V.A. 1985. Wind waves in the World Oceans. Leningrad, "Gidrometeoizdat" Publisher.
- Давидан И.Н., Лопатухин Л.И., Рожков В.А., Ветровое волнение в Мировом океане, Гидрометеоиздат, Л., 1985, 256 с.
- Dragan Ya.G., Rozhkov, V.A., Yavorsky I.N. 1987. Methods of probabilistic analysis of the oceanographic process rhythmic. Leningrad, "Gidrometeoizdat" Publisher.
- Драган Я.Г., Рожков В.Н., Яворский И.Н. Методы вероятностного анализа ритмики океанологических процессов. Л. Гидрометеоиздат. 1987, 319с.
- Lavrenov, I.V. 1998. Mathematical modelling of wind waves in a spatially-non-uniform ocean. St. Petersburg, "Gidrometeoizdat" Publisher.
- Лавренов И.В. Математическое моделирование ветрового волнения в пространственно-неоднородном океане. С. Петербург. Гидрометеоиздат. 1998, 499с.
- Lopatoukhin L. J. 1974. Distribution of wave elements. VNIIGMI MCD Proceedings, 1, 116-142.
- Лопатухин Л.И. Анализ распределений элементов волн. Труды ВНИИГМИ, 1974, вып.1, с116-142.
- Lopatoukhin, L.I., Rozhkov, V.A., Trapeznikov Yu. 1990. A. Spectral structure of waves. In book "Results of oceanographic studies in the eastern part of the Pacific Ocean tropical zone", St. Petersburg, "Gidrometeoizdat" Publisher.
- Лопатухин Л.И., Рожков В.А., Трапезников Ю.А. Спектральная структура волнения. В кн.: «Результаты океанологических исследований в

- восточной части тропической зоны Тихого океана», Л., Гидрометеиздат., 1990, с.128-135.
- Lopatoukhin, L.I., Mikulinskaya, S.M., Rozhkov, V.A. 1991. Maximal wave heights and reliability of their estimates. "Shipbuilding", No. 9.
- Лопатухин Л.И., Микулинская С.М., Рожков В.А. Максимальные высоты волн и их достоверность. Судостроение, 1991, №9, с.3-9.
- Rozhkov, V.A. 1979. Methods of probabilistic analysis for oceanographic processes. Leningrad, "Gidrometeoizdat" Publisher.
- Рожков В.А., Методы вероятностного анализа океанологических процессов, Л. Гидрометеиздат, 1979, 280с.
- Rozhkov, V.A., Trapeznikov Yu. A. 1990. Probabilistic methods for oceanographic processes. Leningrad, "Gidrometeoizdat" Publisher.
- Рожков В.А., Трапезников Ю.А. Вероятностные методы океанологических процессов. Л. Гидрометеиздат. 1990, 272с.
- Handbook on marine hydrological forecasting. St. Petersburg, "Gidrometeoizdat" Publisher. 1994.
- Руководство по морским гидрологическим прогнозам. С.-Петербург. Гидрометеиздат. 1994 525с.
- Smirnov, N.V., Dunin-Barkovsky, I.V. 1969. A course of the theory of probability and mathematical statistics. Moscow, "Science".
- Смирнов Н.В., Дунин-Барковский И.В. Курс теории вероятностей и математической статистики. М «Наука», 1969, 511с.
- Sretensky, L. N. 1977. Theory of Wave Motion in Fluid. Moscow, Nauka.
- Сретенский Л.Н. Теория волновых движений жидкости. М., Наука, 1977, 816 с.
- Tikhonov, V.I., Khimenko, V.I., Outbreaks of random process trajectories. Moscow, "Science".
- Тихонов В.И., Хищенко В.И., Выбросы траекторий случайных процессов. М. «Наука», 1987, 304с.
- Alexandersson, H., T. Schmith, K. Iden and H. Tuomenvirta, 1998: Long-term trend variations of the storm climate over NW Europe. Global Atmosphere - Ocean System 6, 97-120 .
- Angelides D.C., Veneziano D., Shyam Sunder. 1981. Random sea and reliability of offshore foundations. -J. Eng. Mech. Div., v.107, N 1, pp. 131-148.
- Athanassoulis G.A., Soukissian T.H., Stephanakos Ch.N. 1995a Long-term variability and its impact on extreme-value prediction from time series of significant wave height. 4th Intern. Workshop on Wave Hindcasting and Forecasting, Alberta, Canada, October 16-20, 1995
- Athanossoulis G.A., Yranas P.B., Soukissian T.H., 1992. A new model for long-term stochastic analysis and prediction. Journ. Ship Res., v 36, N1, pp. 1-16.
- Athanossoulis G.A., Stephankos Ch.N., 1995. A nonstationary stochastic model for long-term time series of significant wave height, Journ. Geoph. Res., v 100 (C8), pp. 16149-16162.
- Bacon S., Carter D.J.T. 1989. Waves recorded at Seven Stones light vessel 1962-86. Institute of oceanographic sciences, DEACON laboratory, Rep. N268, 94 p.
- Battjes J.A. 1972. Long-term Wave Height Distribution at Seven Stations around the British Isles. Deutsche Hydrographische Zeitschrift, J.25,H.4,179-189.
- Bjerke P.L., Mathienseen M., Tortsethaugen K. 1990. Haltenbanken area metocean study. Main Report./ Norwegian Hydrotechnical Laboratory, Trondheim.
- Boukhanovsky A.V., Davidan I.N., Degtyarev A.B., Lopatoukhin L.J., Rozhkov V.A. 1996. The experience of extreme wind and wave estimation in the Barents and Kara seas. /Proc. Int. Conf. Development and Commercial Utilization of Technologies in Polar Regions. POLARTECH'96, Workshop D, St. Petersburg, pp. 66 - 74.
- Boukhanovsky A.V., Divinsky B.V., Kosy'an R.D., Lopatoukhin L.J., Ozhan E., Abdalla S. 1999. Short-term wave statistics by the measurements of the buoy near the Russian coast of the Black sea. Proc. Int. MEDCOAST Conf. «Wind and wave climate of the Mediterranean and the Black sea», Turkey, p.59-70.
- Boukhanovsky A.V., Lavrenov I.V., Lopatoukhin L.J., Rozhkov V.A. 1999. Extreme wave heights and types of storms in the seas. /Proc. Int. Conf. «Russian Arctic Offshore» RAO'99, St. Petersburg, pp. 332-329.
- Boukhanovsky A.V., Lavrenov I.V., Lopatoukhin L.J., Rozhkov V.A., Divinsky B.V., Kosy'an R.D., Ozhan E., Abdalla S. 1999. Persistence wave statistics for Black and Baltic seas. Proc. Int. MEDCOAST Conf. «Wind and wave climate of the Mediterranean and the Black Sea», Antalya, Turkey, pp. 199-210.
- Boukhanovsky A.V., Lopatoukhin L.J., Rozhkov V.A. 1996. The Experience and Software of Marine Natural Hazards Estimation / Proc. of the International Workshop on MED & Black Sea ICZM. November 2-5, 1996. Sarigerme, Turkey, vol.2, pp. 523-531.
- Boukhanovsky A.V., Lopatoukhin L.J., Rozhkov V.A. 1998. Wave climate spectra and wave energy resources in some Russian seas/ World Meteorological Organization/ Marine Meteorology and Related oceanographic Activities. WMO/TD-No 938. «Provision and engineering/operational application of ocean wave data. UNESCO Paris, 21-25 September. 1998. A conference

- cosponsored by WMO, MétéoFrance and CNES, pp. 324-333.
- Boukhanovsky A.V., Lopatoukhin L.J., Rozhkov V.A. 1998. Approaches and Methods of wave climate calculation. Proc. Fourth Int. Conf. Littoral'98. Barcelona, Spain, 1998, pp. 63-70.
- Boukhanovsky A.V., Lopatoukhin L.J., Ryabinin V.E. 1998. Evaluation of the highest wave in a storm WMO/TD - No. 858, 18 p.
- Bouws, E., D. Jannick and G.J Komen, 1996. On increasing wave height in the North Atlantic Ocean. Bull. Amer. Meteor. Soc., 77, 2275-2277
- Buckley W.N. 1988. Extreme and climatic wave spectra for use in structural design of ships. Naval Engineering Journal Soc. pp. 36-57.
- Buckley W.H. 1993. Design Wave Climates for the World Wide Operations of Ships.. Part 1: Establishments of Design Wave Climate. Int. Maritime Organisation (IMO), Selected Publications. October 1993.
- Carter D.J.T., Draper L. 1988. Has the northeast Atlantic become rougher? Nature, v.332, p. 494.
- Chung-Chu Teng, Timple G., Palao I.M. The development of design wave spectra for use in ocean structure design.
- The Society of Naval Architect and Marine Engineers, Annual Meeting, 1994, Nov.17-18. New Orleans, Louisiana, p. (20-1)-(20-20).
- Chung-Chu Teng, Timple G., Palao I.M. 1993. Design waves and wave spectra for engineering applications./ In: Proc. Int. Conf. «Ocean wave measurements and analysis' WAVES'93», Nov 17-18. New Orleans, p.993-1007
- Cox A.T., Swail V.R. 2000. A global hindcast over the period 1958-1997: validation and climate assessment. Accepted in Journal Geophysical Research (Oceans) 2000.
- David H., 1970. Order statistics. New York, J. Wiley
- Denby L., Landwehr J.M. 1983. The q-q plot. A graphical method for comparing two samples. UMAP Journal, v.IV, N 4, p. 425-452.
- Easson W.J. 1997. Breaking waves and offshore design. Proc. of 7 Int. Offshore and Polar Engineering Conf. Honolulu, USA, , pp. 200-205.
- Forristall G.Z. 1978, On the statistical distribution of wave heights in a storm. Journal of Geophysical Research, 83, N C5, 2353-2358.
- Goda Y. 1979. A review on statistical interpretation of wave data. Report of the Port Harbour research Institute. v.18, N 1, p.5-32.
- Goldman I.L., 1977. An approach to the maximum storm, Proc. 9 Ann. Offshore Conf Houston, v.2, pp. 309-314.
- Gumbel E.J. 1958. Statistics of extremes. Columbia University Press, New York, 375pp.
- Günther, H., W. Rosenthal, M. Stawarz, Carretero, J.C., M. Gomez, I. Lozano, O. Serano, and M. Reistad, 1998: The wave climate of the Northeast Atlantic over the period 1955-94: the WASA wave hindcast. Global Atmosphere - Ocean System, 6, 121-163.
- Guide to Wave Analysis and Forecasting. 1998 (second edition). World Meteorological Organization. WMO – No. 702. Geneva. Switzerland. 159 p.
- Hamsley J.M. 1996. Wave gauging networks world-wide - an overview/ Proc. 25 Int Conf. «Coastal Engineering 1996» Sept. 2-6, Orlando, Florida, USA, vol. 1, pp. 616-628.
- Haring, R.E. and J. C. Heideman, 1978: Gulf of Mexico rare wave return periods. Offshore Technology Conference Paper #3230.
- Haring, R.E. and J. C. Heideman, 1980: Gulf of Mexico rare wave return periods. J. Petrol. Tech., p. 35-37.
- Hirtzel C.S. 1984. Analysis of extreme values of natural processes: statistical description of maximum. Applied Mathematics and Computations, v. 15, No. 4, pp. 283–303.
- Hogben N. Increase in wave heights measured in the North-Eastern Atlantic: A preliminary reassessment of some recent data. Underwater Technology, 1989, 15, N1, pp. 2-10.
- Hosking, J.R.M., J.R. Wallis and E.F. Wood, 1985. Estimation of the generalized extreme value distribution by the method of probability weighted moments. Technometrics, 27(3): 251-261.
- Hosking, J.R.M., 1988. Fortran routines for use with the method of L-moments. Research Report RC13844, IBM Research, Yorktown Heights, N.Y.
- Hosking, J.R.M., 1989. Some theoretical results concerning L-moments. Research Report RC14492, IBM Research, Yorktown Heights, N.Y.
- Hosking, J.R.M., 1990. L-moments: analysis and estimation of distributions using linear combinations of order statistics. J. Royal Statistical Soc., Series B, 52(1): 105-124.
- Hoybye J., Laszlo, I. Analysis of extreme hydrological events in monsoon climate catchment: the Hongru river, China. Hydrological Sciences Journal, 42(3), June 1997, pp. 343 – 356.
- Kalnay E., Kanamitsu M., Kistler R., Collins W. et al. 1996. The NCEP/NCAR 40-year reanalysis project. Bulletin of the American Meteorological Society., v.77, N3, pp. 437-471.
- Komen G.L., Cavaleri L., Donelan M., Hasselmann K., Hasselmann S., Janssen P. 1994. Dynamics and modelling of ocean waves. Cambridge University Press., 532 p.

- Krogstad H.E., Bartsaw S.F., Haug O., Peters D.J.H. 1997 Directional distribution in wave spectra/ Proc. WAVES'97 Conference, Virginia, USA, , pp. 1-13.
- Krogstad H.E. 1998. Directional characteristics of wave spectra. / World Meteorological Organization/ Marine Meteorology and Related oceanographic Activities. WMO/TD-No 938. «Provision and engineering/operational application of ocean wave data. UNESCO Paris, 21-25 September. A conference cosponsored by WMO, MeteoFrance and CNES, pp. 117-127.
- Lambrakos, K. F., and Brannon, H. R., 1974. "Wave Force Calculations for Stokes and Non-Stokes Waves," OTC 2039, Offshore Technology Conference.
- Lawless J.F. 1974. Approximation to confidence intervals of parameters of the extreme value and Weibull distributions. *Biometrika*, 61(1), pp. 123–133.
- Leadbetter M., Lindgren G., Rootzen, H. 1986. Extremes and related properties of random sequences and processes. Springer-Verlag, N.Y.
- Longuet-Higgins M.S. 1957. The Statistical Analysis of Random Moving Surface. *Phil. Trans. Roy. Soc.*, London, v.249, N 469, pp.126-217.
- Lopatoukhin L.J., Boukhanovsky A.V. 1997. Experience, software and some results of wind and waves climate modelling and calculations, related to port problems. Proc. 1st Int. Conf. Port, Coast, Environment PCE'97. Varna, Bulgaria, v.1, pp.191-198.
- Lopatoukhin L.J., Boukhanovsky A.V., Rozhkov V.A., Divinsky B.V., 1999. Climatic wave spectra of the Black Sea, Proc. Int. MEDCOAST Conf. «Wind and wave climate of the Mediterranean and the Black sea», Antalya, Turkey, pp. 97-109.
- Lopatoukhin L.J., Lavrenov I.V., Rozhkov V.A., Bokov V.N, Dymov V.I. 1999. Wind and wave climate near the Prirazlomnoye oil field. Proc. Int. Conf. «Russian Arctic Offshore» RAO'99. St. Petersburg. pp. 315-322.
- Mardia K.V. 1972. Statistics of directional data. Academic Press. London and New-York.
- Muir L.R., El-Shaarovi. 1986. On the calculation of extreme wave heights: a review. / *Ocean Eng.* v.13, N 1, pp. 93-118.
- Ochi M.K. 1978. Wave statistics for the design of ships and ocean structures. *Trans. Soc. Naval. Architects and Mar. Eng.* V.86, pp. 47-76.
- Pilon P.J., Harvey, D.K. Consolidated frequency analysis (CFA). Reference manual. Environment Canada. Ottawa, Ontario, K1A 0H3, March 1993.
- Plackett R.L. 1965. A class of bivariate distributions. *Journ. American Statistical Assoc.* 60, pp.53-77.
- Proceedings International Conference "Wave and wind directionality (application to design of structures)"/ Trondheim, 1986.
- Provision and Engineering/Operational Application of Ocean Wave Spectra. Programme, Abstracts and Proceedings of Int. Conf. WMO/TD No 938, UNESCO Paris 21-25 Sept. 1998.
- Rice S.O. 1944. Mathematical analysis of random noise. *Bell System Technical Journal*, 23 N3, 282-332.
- Rider, K.M., G.J. Komen and J. Beersma, 1996. Simulations of the response of the ocean waves in the North Atlantic and North Sea to CO2 doubling in the atmosphere. KNMI Scientific Report WR 96-05. [Available from KNMI, P.O. Box 201, 3730 AE De Bilt, the Netherlands]
- Rossouw J., Medina J.R. 1995. Design wave estimation –a robust approach. Proc 4<sup>th</sup> Int. Conf. on Coastal and Port Engineering in Developing Countries. COPEDEC IV, Rio de Janeiro, v.3, p. 1811-1825.
- Rozhkov V.A., Boukhanovsky A.V., Lopatoukhin L.J., 1999. Method for calculation of extreme metocean events Proc. Int. MEDCOAST Conf. «Wind and wave climate of the Mediterranean and the Black sea», Antalya, Turkey, p. 189-198.
- Sarpkaya, T., and Isaacson, M., 1981. *Mechanics of Wave Forces on Offshore Structures*, Van Nostrand Reinhold, New York
- Skott J.R. 1968. Some average sea spectra. *Quarterly Transactions Royal Institution if the Naval Architects*, v.110, N 2, pp. 233-245.
- Stanton B.R. 1984. Return wave heights off South Uist estimated from seven years of data. Institute of oceanographic sciences, DEACON laboratory, Rep. N164, 54 p.
- Stephanakos Ch.N. 1999. Nonstationary stochastic modelling of time series with applications to environmental data / *Nat. Techn. University of Athens. /Doct. Degree Diss.*, Athens, 187 p.
- Swail, V.R., E.A. Ceccacci and A.T. Cox, 2000. The AES40 North Atlantic wave reanalysis: validation and climate assessment. Proc. 6<sup>th</sup> International Workshop on Wave Hindcasting and Forecasting, Monterey, CA, 6-10 November 2000, p. 1-15.
- Swail, V.R. and A.T. Cox, 2000. On the use of NCEP-NCAR reanalysis surface marine wind fields for a long-term North Atlantic wave hindcast. *J. Atmos. Oceanogr. Technol.*, (17): 532-545.
- Swail, V.R. and X.L. Wang, 2001. Trends of Atlantic wave extremes as simulated in a 40-year wave hindcast using kinematically reanalyzed wind fields. Submitted to *J. Climate*.
- Szabo D., Cardone V.J., Callahan B.T. 1989. Severe storm identification for extreme criteria determination by hindcasting. 2<sup>nd</sup> Intern. Workshop on wave hindcasting and forecasting. Vancouver, p. 89-95.

- 
- Teng C.C., Timple G., Brown D.A. 1993. Design Waves and Wave Spectra for Engineering Applications, Proc. WAVES'93, New Orleans, LA. 993-1007.
- Vincent C.L., Resio D.T., 1977. An eigenfunction parameterisation of a time sequence of wave spectra. Coast. Eng. N1, pp. 185-205.
- Wang, X.L., and V.R. Swail, 2000. Changes of extreme wave heights in northern hemisphere oceans and related atmospheric circulation regimes. J. Climate, in press.
- WASA Group. 1998. Changing waves and storms in the Northeast Atlantic. Bulletin of the American Meteorological Society. v.79, N5, p.741-760.
- Wilson B.W., 1965. Numerical prediction of ocean waves in the North Atlantic for December 1959. Deutsch. Hydrograph. Zeitschrift, vol. 18, N 3.

---oooOooo---