

AL – A prototype autonomous ship model for navigating in ice conditions

Bolbot, Victor; Sandru, Andrei; Saarniniemi, Ture; Freter, Jan Hendrik; Puolakka, Otto; **Kujala, Pentti**; Valdez Banda, Osiris A. Proceedings of ASME 2024 43rd International Conference on Ocean, Offshore and Arctic Engineering (OMAE2024) June 9-14, 2024, Singapore, Singapore Volume 5 Ocean engineering A 2024 / art. v05at06a049, 10 p. <https://doi.org/10.1115/OMAE2024-127465>
[Conference proceedings at Scopus](#) [Article at Scopus](#)

Applicability of SAR-based wave retrieval for wind-wave interaction analysis in the fetch-limited Baltic

Rikka, Sander; Uiboupin, Rivo; **Alari, Victor** International journal of remote sensing 2017 / p. 906-922 : ill
<https://doi.org/10.1080/01431161.2016.1271472> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Application of satellite data for monitoring the marine environment

Sipelgas, Liis 2006 <https://digi.lib.ttu.ee/ii/?95> https://www.ester.ee/record=b2146053*est

Arktika jää sulab arvatust kiiremini

Maran, Kaur; **Vaikmäe, Rein** Postimees 2018 / lk. 24 [Arktika sulab arvatust kiiremini](#)

Azimuthing propulsion in ice management

Hänninen, Samuli; **Kujala, Pentti Jouko Sakari**; Määttänen, Pirjo; Heideman, Torsten; Korsström, Andrei; Viheriälehto, Sampo; Koponen, Jorma Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / art. OMAE2024-127102, V006T07A016 ; 10 pages <https://doi.org/10.1115/OMAE2024-127102> [Conference proceedings at Scopus](#) [Article at Scopus](#)

A case study of the wind impact on ship ice-sticking

Rjazin, Jevgeni; **Pärn, Ove** TransNav : the international journal on marine navigation and safety of sea transportation 2016 / p. 583-585 : ill <http://dx.doi.org/10.12716/1001.10.04.06>

Classifying the ice seasons 1982-2016 using the weighted ice days number as a new winter severity characteristic

Rjazin, Jevgeni; **Alari, Victor**; **Pärn, Ove** EUREKA : physics and engineering 2017 / p. 49-56 : ill http://dx.doi.org/10.21303/2461-4262.2017_00364

Climate change and coastal processes in the Baltic Sea

Soomere, Tarmo Oxford Research Encyclopedia of Climate Science Oxford 2024
<https://doi.org/10.1093/acrefore/9780190228620.013.897>

Combined analysis of Cryosat-2/SMOS sea icethickness data with model reanalysis fields over the Baltic Sea

Raudsepp, Urmas; Uiboupin, Rivo; **Maljutenko, Ilja**; Hendricks, Stefan; Ricker, Robert; Liu, Ye; Iovino, Doroteaciro; Peterson, K. Andrew; Zuo, Hao; Lavergne, Thomas; Aaboe, Signe; Raj, Roshin P. Journal of operational oceanography 2019 / p. s73-s79 : ill., map
<https://doi.org/10.1080/1755876X.2019.1633075>

Correlation of wind waves and sea level variations on the coast of the seasonally ice-covered Gulf of Finland

Johansson, Milla M.; **Björkqvist, Jan-Victor**; Särkkä, Jani; Leijala, Ulpu; Kahma, Kimmo K. Natural Hazards and Earth System Sciences 2022 / p. 813 - 829 <https://doi.org/10.5194/nhess-22-813-2022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Determining the ice seasons severity during 1982-2015 using the ice extents sum as a new characteristic

Rjazin, Jevgeni; **Pärn, Ove** Geophysical research abstracts 2016 / p. EGU2016-3020

A device for measuring wind waves in the marginal ice zone

Alari, Victor; Björkqvist, Jan-Victor; **Kask, Anne**; Mölder, Kristjan; Kaldvee, Valdur Abstracts : [BSSC 2019] 2019 / p. 296
https://www.su.se/polopoly_fs/1.446756.1566224624!/menu/standard/file/abstracts_A5_ny.pdf

Do contemporary (1980-2015) emissions determine the elemental carbon deposition trend at Holtedahlfonna glacier, Svalbard?

Ruppel, Meri M.; Soares, Joana; Gallet, Jean-Charles; Isaksson, Elisabeth; **Martma, Tõnu** Atmospheric chemistry and physics 2017 / p. 12779-12795 : ill <https://doi.org/10.5194/acp-17-12779-2017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A dynamic Biologically Active Layer for numerical studies of the sea ice ecosystem

Tedesco, Letizia; Vichi, Marcello; Haapala, Jari; Stipa, Tapani Ocean modelling 2010 / p. 89-104 : ill
<https://doi.org/10.1016/j.ocemod.2010.06.008>

Effect of ice cover on wave statistics and wave-driven processes in the northern Baltic Sea

Najafzadeh, Fatemeh; **Kudryavtseva, Nadezhda**; **Soomere, Tarmo**; **Giudici, Andrea** Boreal environment research 2022 / p. 97-116 : ill <https://www.borenv.net/BER/archive/pdfs/ber27/ber27-097-116.pdf> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation of the nemo-nordic model by comparing the seaice concentration values in the Baltic Sea

Rjazin, Jevgeni; Hordoir, Robinson; Pärn, Ove The Journal of Ocean Technology 2019 / p. 181 - 194

https://www.researchgate.net/publication/334431905_EVALUATION_OF_THE_NEMO-NORDIC_MODEL_BY_COMPARING_THE_SEA-ICE_CONCENTRATION_VALUES_IN_THE_BALTIC_SEA Journal metrics at Scopus Article at Scopus

High-resolution ice dynamics in the Gulf of Finland

Lilover, Madis-Jaak; Kõuts, Tarmo; Leppäranta, Matti The 11th Baltic Sea Science Congress "Living Along Gradients : Past, Present, Future" : June 12-16, 2017 : abstracts 2017 / p. 17 https://www.io-warnemuende.de/tl_files/conference/bssc2017/bssc2017-abstract-book.pdf

Ice deformation in the Gulf of Finland in the severe winter of 2002/2003

Pärn, Ove; Haapala, Jari Estonian journal of earth sciences 2013 / p. 15-25 : ill https://artiklid.elnet.ee/record=b2607202*est
<https://doi.org/10.3176/earth.2013.02> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Increased snow contribution to Arctic sea ice mass balance

Granskog, Mats A.; Rösel, A.; Provost, C.; Sennechal, N.; Dodd, P. A.; **Martma, Tõnu;** Leng, M. J. AGU Fall Meeting 2016 : San Francisco, California, 12-16 December 2016 / p. C22A-01 <http://adsabs.harvard.edu/abs/2016AGUFM.C22A..01G>

Influence of compressive ice force in bow-to-aft ship collision

Tabri, Kristjan; Goerlandt, Floris; Kujala, Pentti The 7th International Conference on Collision and Grounding of Ships and Offshore Structures : ICCGS 2016 : 15th-18th June, 2016, University of Ulsan, Ulsan, Korea 2016 / p. 131-137 : ill

Influence of glacial water and carbonate minerals on wintertime sea-ice biogeochemistry and the CO₂ system in an Arctic fjord in Svalbard

Fransson, Agneta; Chierici, Melissa; Nomura, Daiki; **Martma, Tõnu** Annals of glaciology 2020 / p. 320-340 : ill
<https://doi.org/10.1017/aog.2020.52> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Interaction of ice force in ship-ship collision

Nelis, Sander; **Tabri, Kristjan;** Kujala, Pentti ASME 2015 34th International Conference on Ocean, Offshore and Arctic Engineering : St. John's, Newfoundland, Canada, May 31–June 5, 2015 2015 / 8 p <https://doi.org/10.1115/OMAE2015-41351> Conference Proceedings at Scopus Article at Scopus Article at WOS

Interannual variations of ice cover and wave energy flux in the northeastern Baltic Sea

Zaitseva-Pärnaste, Inga; Soomere, Tarmo Annals of glaciology 2013 / p. 175-182 : ill <https://doi.org/10.3189/2013AoG62A228> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

An investigation of winter navigation and icebreaker needs in the ice-infested water: The gulf of Finland and the Gulf of Riga

Lu, Liangliang; Kondratenko, Aleksandr; Kulkarni, Ketki; Li, Fang; Kujala, Pentti Jouko Sakari; Musharraf, Mashrura Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / OMAE2024-127955, V006T07A006 ; 8 pages <https://doi.org/10.1115/OMAE2024-127955> Conference proceedings at Scopus Article at Scopus

Jäämudeli analüüs, talvise meresõidu riskid

Pärn, Ove Kaasaegse ökoloogia probleemid : loodushoiu majandushoovad : Eesti X Ökoloogiakonverentsi lühiartiklid : Tartu, 27.-28. aprill, 2006 2006 / lk. 179

Jääääääääää

Alari, Victor Studioosus 2012 / lk. 12 https://www.ester.ee/record=b1558644*est

[Kommentaar artiklile "Põhjapooluse jääkate mureneb"]

Raukas, Anto Horisont 2008 / 5, lk. 6

LainePoiss® - a lightweight and ice-resistant wave buoy

Alari, Victor; Björkqvist, Jan-Victor; Kaldvee, Valdur; Mölder, Kristjan; **Rikka, Sander; Kask-Korb, Anne; Vahter, Kaimo; Pärt, Siim; Vidjajev, Nikon;** Tönnisson, Hannes Journal of atmospheric and oceanic technology 2022 / p. 573–594 : ill
<https://doi.org/10.1175/JTECH-D-21-0091.1> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

A large-scale high-resolution numerical model for sea-ice fragmentation dynamics

Åström, Jan; Robertsen, Fredrik; Haapala, Jari; Polojärvi, Arttu; **Uiboupin, Rivo; Maljutenko, Ilja** The Cryosphere 2024 / p. 2429–2442 <https://doi.org/10.5194/tc-18-2429-2024> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Level ice-structure interaction simulations using solid and shell elements

Kõrgesaar, Mihkel; Tabri, Kristjan; Avi, Eero Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / art. v006t07a008 <https://doi.org/10.1115/OMAE2024-128141> Conference proceedings at Scopus Article at Scopus

Methane sulphonic acid in East Antarctic coastal firm and ice cores and its relationship with chlorophyll-a and sea ice extent

Nilsson, Emma C.; Vega, Carmen Paulina; Divine, Dmitry V.; Eichler, Anja; **Martma, Tõnu**; Mulvaney, Robert; Schlosser, Elisabeth; Schwikowski, Margit; Isaksson, Elisabeth Ice core science at the three poles (CP/TC inter-journal SI) 2024 / 27 p. : ill <https://doi.org/10.5194/egusphere-2023-3156>

Nemo-Nordic 2.0 : operational marine forecast model for the Baltic Sea

Kärnä, Tuomas; Ljungemyr, Patrik; Falahat, Saeed; Ringgaard, Ida; Axell, Lars; Korabel, Vasily; Murawski, Jens; **Maljutenko, Ilja**; Lindenthal, Anja; Jandt-Scheelke, Simon; **Verjovkina, Svetlana**; Lorkowski, Ina; **Lagemaa, Priidik**; She, Jun; Tuomi, Laura; Nord, Adam; Huess, Vibeke Geoscientific Model Development 2021 / p. 5731 - 5749 <https://doi.org/10.5194/gmd-14-5731-2021> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Numerical assessment of novel ice breaking technology

Tabri, Kristjan; Saar, Kalju; Aanensen, Marie; Andersen, Steinar Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2023 ; vol. 6 2023 / art. V006T07A027 ; 9 p. : ill <https://doi.org/10.1115/OMAE2023-104670> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Occurrence of synoptic flow leads of sea ice in the Gulf of Finland

Pärn, Ove; Haapala, Jari Boreal environment research 2011 / p. 71-78 : ill https://www.researchgate.net/publication/267373575_Occurrence_of_synoptic_flow_leads_of_sea_ice_in_the_Gulf_of_Finland

On the relationship between sea ice deformation and ship damages in the Gulf of Finland in winter 2003

Pärn, Ove; Haapala, Jari; Kõuts, Tarmo; Elken, Jüri; Riska, Kaj Proceedings of the Estonian Academy of Sciences. Engineering 2007 / 3, p. 201-214 : ill

Püsiv jääkate jäi sooja talve tõttu Läänemerele tulemata

Kõuts, Mariliis; Uiboupin, Rivo novaator.err.ee 2025 <https://novaator.err.ee/1609633382/pusiv-jaakate-jai-sooja-talve-tottu-laanemerele-tulemata>

Reduction of detection limits of anions in polar ice core analysis using correlation ion chromatography

Ivask, Jüri; Kaljurand, Mihkel Journal of chromatography A 1999 / p. 419-423 [https://doi.org/10.1016/S0021-9673\(99\)00359-3](https://doi.org/10.1016/S0021-9673(99)00359-3)

Sea ice deformation events in the Gulf of Finland and their impact on shipping = Merejää deformatsioonid Soome lahes ning nende mõju laevaliiklusele

Pärn, Ove 2011

Sea ice dynamics influence halogen deposition to Svalbard

Spolaor, Andrea; Gabrieli, Jacopo; **Martma, Tõnu**; Kohler, Jack; Björkman, Mats B.; Isaksson, Elisabeth; Varin, Cristiano; Vallelonga, Paul; Plane, John M. C.; Barbante, Carlo The cryosphere 2013 / p. 1645-1658 : ill <https://doi.org/10.5194/tc-7-1645-2013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sea ice in the Baltic Sea during 1993/94–2020/21 ice seasons from satellite observations and model reanalysis

Singh, Shakti; Maljutenko, Ilja; Uiboupin, Rivo The cryosphere 2025 / p. 4741-4758 <https://doi.org/10.5194/tc-19-4741-2025> [Article at Scopus](#) [Article at WOS](#)

Sea ice type classification in the Baltic Sea from TanDEM-X imagery

Laanemäe, Kaari; Uiboupin, Rivo; Rikka, Sander EUSAR 2016 : 11th European Conference on Synthetic Aperture Radar : 06-09 June, 2016, Hamburg, Germany : proceedings 2016 / p. 657-660 : ill

Seasonality of halogen deposition in polar snow and ice

Spolaor, Andrea; Vallelonga, Paul; Gabrieli, Jacopo; **Martma, Tõnu**; Björkman, Mats P.; Isaksson, Elisabeth; Cozzi, Gabriele; Turetta, Clara; Kjær, H.A.; Curran, M.A.J. Atmospheric chemistry and physics 2014 / p. 9613-9622 : ill <https://doi.org/10.5194/acp-14-9613-2014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Snow contribution to first-year and second-year Arctic sea ice mass balance north of Svalbard

Granskog, Mats A.; Rösel, Anja; Dodd, Paul A.; Divine, Dmitry V.; Gerland, Sebastian; **Martma, Tõnu**; Leng, Melanie J. Journal of geophysical research : oceans 2017 / p. 2539-2549 : ill <https://doi.org/10.1002/2016JC012398> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spatial and temporal variability of net accumulation from shallow cores from Vestfonna ice cap (Nordaustlandet, Svalbard)

Beudon, Emilie; **Martma, Tõnu** Geografiska annaler. Series A, Physical geography 2011 / p. 287-299 : ill <https://www.tandfonline.com/doi/abs/10.1111/j.1468-0459.2011.00439.x>

Spring sea-ice evolution in Rijpfjorden (808°N), Svalbard, from in situ measurements and ice mass-balance buoy (IMB) data

Wang, Caixin; Shi, Liqiong; Gerland, Sebastian; Granskog, Mats A.; Renner, Angelika H. H.; Li, Zhijun; Hansen, Edmond; **Martma, Tõnu** Annals of glaciology 2013 / p. 253-260 : ill <https://doi.org/10.3189/2013AoG62A135> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Statistical characterization of the sea ice extent during different winter scenarios in the Gulf of Riga (Baltic Sea) using optical remote-sensing imagery

Siitam, Laura; Sipelgas, Liis; Pärn, Ove; Uiboupin, Rivo International journal of remote sensing 2017 / p. 617-638 : ill <https://doi.org/10.1080/01431161.2016.1268734> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A study on the ice resistance characteristics of ships in rafted ice based on the circumferential crack method

Huang, Jiayu; Diao, Feng; Ding, Shifeng; Han, Sen; **Kujala, Pentti Jouko Sakari**; Zhou, Li Water 2024 / art. 854 <https://doi.org/10.3390/w16060854> [Journal metrics at Scopus](#) [Article at Scopus](#)

Teadlane vastab : kuidas satub hapnik merede põhja? [Võrguväljaanne]

Soomere, Tarmo Eesti Teaduste Akadeemia : Youtube kanal 2020 / video [Teadlane vastab: kuidas satub hapnik merede põhja?](#)

Teadlased hakkavad kopterilt jääd uurima : [TTÜ meresüsteemide instituudi teadlased]

Postimees 2010 / 9. veebr., lk. 4 <https://www.postimees.ee/222095/eesti-teadlased-hakkavad-kopterilt-jaad-uurima>

The ice seasons severity by the ice extents sum on the Baltic Sea during 1982-2015

Pärn, Ove; Rjazin, Jevgeni; Uiboupin, Rivo 1st Baltic Earth Conference Multiple Drivers for Earth System Changes in the Baltic Sea Region : Nida, Curonian Spit, Lithuania, 13-17 June 2016 : conference proceedings 2016 / p. 151-152 : ill http://www.baltic-earth.eu/events/nida2016/material/BalticEarth_Nida2016_Proceedings.pdf

Uudne nutikas poi aitab uurida merejää ja lainetuse vastasmõju

Alari, Victor Horisont 2023 / lk. 24-28 : fot https://www.ester.ee/record=b1072243*est

Wintertime sea-ice chemistry and influence of glacial freshwater discharge during two contrasting years in a Spitsbergen fjord

Fransson, A.; Chierici, M.; Nomura, D.; **Martma, Tõnu** Goldschmidt Conference abstracts : 2016 2016 / p. 843 <http://goldschmidt.info/2016/uploads/abstracts/finalPDFs/A-Z.pdf>

Конференция по Балтийскому морю: потопы пока не предвидятся [Online resource]

Liiviste, Priit Stolitsa.ee 2021 ["Конференция по Балтийскому морю: потопы пока не предвидятся"](#)