

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 the LSTM models for Baltic Sea wave spectra estimation

Simon, Martin; Rikka, Sander; Nõmm, Sven; Alari, Victor IEEE Journal of Selected Topics in Applied Earth Observations and

Remote Sensing 2023 / p. 83-88 : ill <https://doi.org/10.1109/JSTARS.2022.3220882> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Copernicus Marine Service Ocean State Report, Issue 5

Aaboe, Signe; Alari, Victor; Alexander, Brittany E.; Kõuts, Mariliis; Lagemaa, Priidik; Maljutenko, Ilja; Männik, Andres;

Raudsepp, Urmas; Rikka, Sander; Uiboupin, Rivo Journal of operational oceanography 2021 / p. 1-185

<https://doi.org/10.1080/1755876X.2021.1946240> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Estimation of wave and wind field parameters from TerraSAR-X imagery in the Baltic Sea

Rikka, Sander; Uiboupin, Rivo; Alari, Victor 10th Baltic Sea Science Congress : Science and innovation for future of the Baltic and

the European regional seas : 15-19 June, 2015, Riga, Latvia : abstract book 2015 / p. 171 http://www.bssc2015.lv/wp-content/uploads/2015/07/10th_BSSC_AbstractBook_final.pdf

Extreme waves and low sea level during the storm in the Gulf of Bothnia, Baltic Sea

Raudsepp, Urmas; Männik, Aarne; Maljutenko, Ilja; Lagemaa, Priidik; Rikka, Sander; Alari, Victor; Uiboupin, Rivo Journal of

operational oceanography 2021 / p. s162-s173 : ill., map <https://doi.org/10.1080/1755876X.2021.1946240>

High resolution TSM mapping of dredging operations using automated UAV activated by online in situ measurements : proof on concept

Rikka, Sander; Kõuts, Tarmo; Pärt, Siim; Vahter, Kaimo The 11th Baltic Sea Science Congress "Living Along Gradients : Past,

Present, Future" : June 12-16, 2017 : abstracts 2017 / p. 83 https://www.io-warnemuende.de/tl_files/conference/bssc2017/bssc2017-abstract-book.pdf

The impact of surface currents and sea level on the wave field evolution during St. Jude storm in the eastern Baltic Sea

Viitak, Marii; Maljutenko, Ilja; Alari, Victor; Suursaar, Ülo; Rikka, Sander; Lagemaa, Priidik Oceanologia 2016 / p. 176-186 : ill

<https://doi.org/10.1016/j.oceano.2016.01.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Laineparametrite määramine Läänemeres radariandmete põhjal

Rikka, Sander; Uiboupin, Rivo; Alari, Victor Kaugseire Eestis 2014 : artiklikogumik 2014 / lk. 22-30 : ill

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; Tõnisson, 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](#)

Meteo-marine parameters from Sentinel-1 SAR imagery : towards near real-time services for the Baltic Sea

Rikka, Sander; Pleskachevsky, Andrey; Jacobsen, Sven; Alari, Victor; Uiboupin, Rivo Remote sensing 2018 / art. 757, 17 p. : ill

<https://doi.org/10.3390/rs10050757> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A method for significant wave height estimation from circularly polarized X-Band coastal marine radar images

Rikka, Sander; Uiboupin, Rivo; Kõuts, Tarmo; Vahter, Kaimo; Pärt, Siim IEEE Geoscience and Remote Sensing Letters 2019 /

p. 844-848 : ill <https://doi.org/10.1109/LGRS.2018.2886631> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methodology for mapping flood extent on Estonian floodplains

Sipelgas, Liis; Aavaste, Age; Uiboupin, Rivo; Rikka, Sander 2020 IEEE International Geoscience and Remote Sensing

Symposium, September 26 – October 2, 2020 : Virtual Symposium : Proceedings 2020 / p. 4750-4753

<https://doi.org/10.1109/IGARSS39084.2020.9324369> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

More room at the top : How small buoys help reveal the detailed dynamics of the air-sea interface

Cavaleri, Luigi; Alari, Victor; Benetazzo, Alvise; Björkqvist, Jan-Victor; Breivik, Øyvind; Davis, Jacob; Hope, Gaute; Kleven, Atle;

Leirvik, Frode; Nordam, Tor; Rikka, Sander Bulletin of the American Meteorological Society 2025 / p. E1063-E1076

<https://doi.org/10.1175/BAMS-D-24-0120.1>

Operational wave height monitoring using navigation buoys and marine radars in the Baltic Sea [Online resource]

Kõuts, Tarmo; Rikka, Sander; Käärmann, Leo; Usk, Aivar Operational oceanography serving sustainable marine development :

Proceedings of the Eighth EuroGOOS International Conference, 3-5 October 2017, Bergen, Norway 2018 / p. 157-163 : ill

<http://eurogoos.eu/download/publications/EuroGOOS-2017-Conference-Proceedings.pdf>

Operational wave height monitoring using navigation buoys and marine radars in the Baltic Sea [Online resource]

Kõuts, Tarmo; Rikka, Sander; Käärmann, Leo; Usk, Aivar International Conference Operational Oceanography Serving Sustainable Marine Development : 3-5 October 2017, Bergen, Norway : book of abstracts 2017 / p. 21
http://eurogoos.imr.no/resources/EuroGOOS_Conference_2017_BoA.pdf

Pre-evaluation of wave energy converter deployment in the Baltic Sea through site limitations using CMEMS hindcast, Sentinel-1, and wave Buoy data
Vidjajev, Nikon; Rikka, Sander; Alari, Victor Energies 2025 / art. 3843 <https://doi.org/10.3390/en18143843>

Radar remote sensing of meteo-marine parameters in the Baltic Sea = Laine- ja tuuleväljade määramine Läänemeres radarkaugseire andmetest
Rikka, Sander 2019 <https://digi.lib.ttu.ee/i/?12168>

Radar remote sensing of the meteo-marine parameters in the Baltic Sea [Online resource]
Rikka, Sander; Uiboupin, Rivo; Pleskachevsky, Andrey; **Alari, Victor;** Jacobsen, Sven; **Kõuts, Tarmo** 2nd Baltic Earth Conference The Baltic Sea in Transition : Helsingør, Denmark, 11 to 15 June 2018 : conference proceedings 2018 / p. 139-140 : ill
https://www.baltic-earth.eu/publications/IBESPublications/No_13_Helsingor_Proceedings/2ndBalticEarthConferenceProceedings_IBESP_No13_web.pdf

Radarkaugseire kasutamine Läänemere lainetuse ja tuuleväljade määramiseks
Rikka, Sander; Uiboupin, Rivo; Pleskachevsky, Andrey; **Alari, Victor;** Jacobsen, Sven; **Kõuts, Tarmo** Kaugseire Eestis 2018 : artiklikogumik 2018 / lk. 32-40 : ill https://kosmos.ut.ee/sites/default/files/kosmos/kaugseire_eestis_2018.pdf

Reconstruction of Baltic gridded sea levels from tide gauge and altimetry observations using spatiotemporal statistics from reanalysis
Elken, Jüri; Barzandeh, Amirhossein; Maljutenko, Ilja; Rikka, Sander Remote sensing 2024 / art. 2702
<https://doi.org/10.3390/rs16152702> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [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

Sea state in the Baltic Sea from space-borne high-resolution synthetic aperture radar imagery
Rikka, Sander; Pleskachevsky, Andrey; **Uiboupin, Rivo;** Jacobsen, Sven International journal of remote sensing 2018 / p. 1256-1284 : ill <https://doi.org/10.1080/01431161.2017.1399475> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sea state parameters in highly variable environment of Baltic Sea from satellite radar images
Rikka, Sander; Pleskachevsky, Andrey; **Uiboupin, Rivo;** Jacobsen, Sven 2017 IEEE International Geoscience & Remote Sensing Symposium : proceedings : July 23-28, 2017, Fort Worth, Texas, USA 2017 / p. 2965-2968 : ill
<https://doi.org/10.1109/IGARSS.2017.8127621> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Sea surface circulation in the Baltic Sea : decomposed components and pattern recognition
Barzandeh, Amirhossein; Maljutenko, Ilja; Rikka, Sander; Lagemaa, Priidik; Männik, Aarne; Uiboupin, Rivo; Raudsepp, Urmas Scientific reports 2024 / art. 18649 <https://doi.org/10.1038/s41598-024-69463-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sentinel-1 satelliitide andmetel põhinev operatiivne jääseireteenus
Rikka, Sander; Sipelgas, Liis; Simon, Martin; Služenikina, Jekaterina; **Siitam, Laura; Uiboupin, Rivo** Kaugseire Eestis 2021 : artiklikogumik 2022 / p. 53-64 https://sisu.ut.ee/sites/default/files/kaugseire/files/kaugseire_eestis_2021_artiklikogumik_1.pdf
<https://kaugseire.ee/2021>

A Surrogate model for daily sea surface current fields prediction using CNN-UNET
Barzandeh, Amirhossein; Maljutenko, Ilja; Rikka, Sander; Raudsepp, Urmas EGU General Assembly 2025 2025 / art. EGU25-16890 <https://meetingorganizer.copernicus.org/EGU25/EGU25-16890.html> <https://doi.org/10.5194/egusphere-egu25-16890>

Swell hindcast statistics for the Baltic Sea
Björkqvist, Jan-Victor; Pärt, Siim; Alari, Victor; Rikka, Sander Ocean Science 2021 / p. 1815–1829 <https://doi.org/10.5194/os-17-1815-2021> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Validation of Copernicus sea level altimetry products in the Baltic Sea and Estonian lakes
Liibus, Aive; Kall, Tarmo; Rikka, Sander; Uiboupin, Rivo; Suursaar, Ülo; Tseng, K.-H. Remote sensing 2020 / art. 4062, p. 1-19
<https://doi.org/10.3390/rs12244062> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Validation of sentinel-3 coastal altimetry data on the Baltic Sea and Estonian lakes
Liibus, Aive; Kall, Tarmo; Rikka, Sander; Uiboupin, Rivo 12th Coastal Altimetry Workshop : Coastal Altimetry Training Course, 4-7 February, 2020 : European Space Agency ESRI, Frascati, Italy : abstracts 2020 / p. 39-40
<https://az659834.vo.msecnd.net/eventsairwesteuprod/production-nikal-public/ae128dad984c40168397660cc8d0ede7>

Wave density spectra estimation with LSTM from Sentinel-1 SAR in the Baltic Sea

Rikka, Sander; Nömm, Sven; Alari, Victor; Simon, Martin; Björkqvist, Jan-Victor 2024 IEEE/OES Thirteenth Current, Waves and Turbulence Measurement (CWTM), 18-20 March 2024 2024 / 5 p. : ill <https://doi.org/10.1109/CWTM61020.2024.10526344> [Article at Scopus](#)

Wave height return periods from combined measurement–model data: a Baltic Sea case study

Björkqvist, Jan-Victor; Rikka, Sander; Alari, Victor; Männik, Aarne; Tuomi, Laura; Pettersson, Heidi Natural hazards and earth system sciences 2020 / p. 3593–3609 <https://doi.org/10.5194/nhess-20-3593-2020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)