

A cascade of multi-scale processes shaping the signal dynamics and maintaining the energy transfer in stratified Baltic Sea basins

Lips, Urmas; Liblik, Taavi; Lips, Inga; Rünk, Nelli; Kikas, Villu; Laanemets, Jaan; Väli, Germa The 11th Baltic Sea Science Congress "Living Along Gradients : Past, Present, Future" : June 12-16, 2017 : abstracts 2017 / p. 15 https://www.io-warnemuende.de/tl_files/conference/bssc2017/bssc2017-abstract-book.pdf

Central Baltic Sea Circulation Experiment – first results

Liblik, Taavi; Rak, Daniel; Siht, Enriko; Väli, Germa; Karstensen, Johannes; Tuomi, Laura; Biddle, Louise; Lilover, Madis-Jaak; Skudra, Maris; Lips, Urmas New challenges for Baltic Sea Earth System research : conference proceedings 2024 / p. 145-146 https://baltic.earth/imperia/md/assets/baltic_earth/baltic_earth/baltic_earth/5bec_proceedings.pdf

Clustering of floating particles due to submesoscale dynamics : a simulation study for the Gulf of Finland, Baltic Sea

Väli, Germa; Zhurbas, Victor; Laanemets, Jaan; Lips, Urmas Фундаментальная и прикладная гидрофизика 2018 / с. 21-35 <https://doi.org/10.7868/s2073667318020028> <http://hydrophysics.info/?p=3685> [en Journal metrics at Scopus Article at Scopus](#)

Conditions that influence Good Environmental Status (GES) in the Baltic Sea

Kolesova, Natalja; Väli, Germa; Lips, Urmas 2021 <https://helcom.fi/wp-content/uploads/2021/11/Conditions-that-influence-Good-Environmental-Status-GES-in-the-Baltic-Sea.pdf>

Correction to: Disentangling the impact of nutrient load and climate changes on Baltic Sea hypoxia and eutrophication since 1850 (Climate Dynamics, (2019), 53, 1-2, (1145-1166), 10.1007/s00382-018-4296-y)

Meier, H. E. Markus; Eilola, Kari; Almroth-Rosell, Elin; Schimanke, S.; Kniebusch, M.; Höglund, A.; Pemberton, P.; Liu, Y.; **Väli, Germa**; Saraiva, S. Climate Dynamics 2019 / p. 1167 - 1169 <https://doi.org/10.1007/s00382-018-4483-x> [Journal metrics at Journal Article at Scopus Journal metrics at WOS Article at WOS](#)

Disentangling the impact of nutrient load and climate changes on Baltic Sea hypoxia and eutrophication since 1850

Meier, H.E. Markus; Eilola, Kari; Almroth-Rosell, Elin; **Väli, Germa** Climate dynamics 2019 / p. 1145–1166 : ill <https://doi.org/10.1007/s00382-018-4296-y> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

Environmental conditions at possible Estonian offshore windfarm locations, comparison with working station

Erm, Ants; Väli, Germa; Kask, Andres; Alari, Victor; Mark, Rainer; Konts, Mari-Liis; Vahter, Kaimo BSSC 2009 : [7th Baltic Sea Science Congress 2009] : August 17-21, 2009, Tallinn, Estonia : abstract book 2009 / p. 227

Environmental impact of water exchange blocking in a strait – a multidisciplinary study in the Baltic Sea

Liblik, Taavi; Buschmann, Fred; Siht, Ergo; Kuprijanov, Ivan; Väli, Germa; Lipp, Maarja; Erm, Ants; Laanemets, Jaan; Eschbaum, Redik; Verliin, Aare; Saks, Lauri; Zekker, Ivar Oceanologia 2024 / p. 9-25 : ill <https://doi.org/10.1016/j.oceano.2023.06.002> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

Eulerian and Lagrangian submesoscale coherent structures on the sea surface driven by coastal upwelling: a case study for the Gulf of Finland

Väli, Germa; Zhurbas, Victor; Laanemets, Jaan; Lips, Urmas From small scales to large scales - The Gulf of Finland Science Days 2017, 9th-10th October 2017, Estonian Academy of Sciences, Tallinn : Oral presentations 2017 / p. 43

Forcing-dependent submesoscale variability and subduction in a coastal sea area (Gulf of Finland, Baltic Sea)

Salm, Kai; Väli, Germa; Liblik, Taavi; Lips, Urmas Ocean science 2025 / p. 2555-2577 <https://doi.org/10.5194/os-21-2555-2025> [Article at Scopus](#)

Hazardous substances in the sediments and their pathways from potential sources in the eastern Gulf of Finland

Kuprijanov, Ivan; Väli, Germa; Sharov, Andrey; Berezina, Nadezhda; Liblik, Taavi; Lips, Urmas; Kolesova, Natalja; Maanio, Jaakko; Junttila, Ville; Lips, Inga Marine pollution bulletin 2021 / art. 112642, 19 p. : ill <https://doi.org/10.1016/j.marpolbul.2021.112642> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

Hindcast of the mesoscale eddy field in the Southeastern Baltic Sea: Model output vs satellite imagery

Zhurbas, Victor; **Väli, Germa**; Kostianoy, Andrey; Lavrova, Olga Russian journal of earth sciences 2019 / art. 46591, 17 p. : ill <https://doi.org/10.2205/2019ES000672> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

Impact of coastal currents and eddies on particle dispersion in the Baltic Sea: a Lagrangian approach to marine ecosystems

Hariri, Saeed; **Väli, Germa**; Meier, H. E. Markus Frontiers in marine science 2025 / 12 p <https://doi.org/10.3389/fmars.2025.1545035> <https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2025.1545035/full>

Investigating the influence of sub-mesoscale current structures on Baltic Sea connectivity through a Lagrangian analysis

Hariri, Saeed; Meier, H. E. Markus; Väli, Germa Frontiers in marine science 2024 / 18 p <https://doi.org/10.3389/fmars.2024.1340291> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

Mapping microplastic pathways and accumulation zones in the Gulf of Finland, Baltic Sea – insights from modeling

Mishra, Arun; Siht, Enriko; Väli, Germa; Liblik, Taavi; Buhhalko, Natalja; Lips, Urmas *Frontiers in marine science* 2025 / art. 1524585, 17 p. : ill., map <https://doi.org/10.3389/fmars.2024.1524585> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mesoscale variability and river plume dynamics in the Gulf of Riga (a model study)

Lips, Urmas; Zhurbas, Victor; Skudra, Maris; Väli, Germa 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. 72 http://www.bssc2015.lv/wp-content/uploads/2015/07/10th_BSSC_AbstractBook_final.pdf

Midwinter stratification formation in the Gulf of Finland

Liblik, Taavi; Väli, Germa; Lilover, Madis-Jaak; Laanemets, Jaan; Kikas, Villu; Lips, Inga 3rd Baltic Earth Conference : Earth system changes and Baltic Sea coasts, To be held in Jastarnia, Hel Peninsula, Poland, 1 to 5 June 2020, Held online, 2-3 June 2020 : Conference proceedings 2020 / p. 123 ["proceedings"](#)

Modeling submesoscale processes in the gulf of finland - case scenario upwelling events in the summer 2006

Väli, Germa; Zhurbas, Victor; Laanemets, Jaan; Lips, Urmas; Elken, Jüri 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. 82 http://www.bssc2015.lv/wp-content/uploads/2015/07/10th_BSSC_AbstractBook_final.pdf

Modeling the pathways of microplastics in the Gulf of Finland, Baltic Sea – sensitivity of parametrizations

Siht, Enriko; Väli, Germa; Liblik, Taavi; Mishra, Arun; Buhhalko, Natalja; Lips, Urmas *Ocean dynamics* 2024 / art. 9, 24 p. : ill., map <https://doi.org/10.1007/s10236-024-01649-0>

Numerical experiments on matter transport in the Baltic Sea = Aine transpordi numbrilised eksperimendid Läänemeres

Väli, Germa 2011 https://www.ester.ee/record=b2700064*est

A numerical study of circulation in the Gulf of Riga, Baltic Sea. Part I : Whole-basin gyres and mean currents

Lips, Urmas; Zhurbas, Victor; Skudra, Maris; Väli, Germa *Continental shelf research* 2016 / p. 1-13 : ill <https://doi.org/10.1016/j.csr.2015.11.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A numerical study of circulation in the Gulf of Riga, Baltic Sea. Part II : Mesoscale features and freshwater transport pathways

Lips, Urmas; Zhurbas, Victor; Skudra, Maris; Väli, Germa *Continental shelf research* 2016 / p. 44-52 : ill <https://doi.org/10.1016/j.csr.2015.12.018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On the possibility of convective overturning in the Slupsk Furrow overflow of the Baltic Sea

Zhurbas, Victor; Elken, Jüri; Paka, Vadim; Piechura, Jan; Chubarenko, Irina; Väli, Germa; Golenko, Nikolay; Shchuka, Sergey *Oceanologia* 2011 / p. 771-791 : ill <https://www.sciencedirect.com/science/article/pii/S0078323411500235>

Pathways and distribution of microplastic in the Eastern Baltic Sea = Mikroplasti levik ja jaotused Läänemere idaosas

Mishra, Arun 2025 https://www.ester.ee/record=b5748117*est <https://digikogu.taltech.ee/et/Item/926a58d0-78e8-4c52-9df7-8fad0dbfdc4c> <https://doi.org/10.23658/taltech.36/2025>

Pathways of suspended particles released in the bottom boundary layer of the Bornholm Deep, Baltic Sea (numerical simulations)

Zhurbas, Victor; Elken, Jüri; Väli, Germa US/EU-Baltic International Symposium : Ocean observations, ecosystem-based management & forecasting : May 27-29, 2008, Tallinn, Estonia : book of abstracts 2008 / p. 171

Pathways of suspended particles transport in the bottom layer of the southern Baltic Sea depending on the wind forcing (numerical simulations)

Zhurbas, Victor; Elken, Jüri; Väli, Germa; Kuzmina, Natalia; Paka, Vadim *Oceanology* 2010 / p. 841-854

Quality of Estonian coastal waters by underwater optical measurements

Alari, Victor; Erm, Ants; Väli, Germa; Lips, Inga; Lips, Urmas US/EU-Baltic International Symposium : Ocean observations, ecosystem-based management & forecasting : May 27-29, 2008, Tallinn, Estonia : book of abstracts 2008 / p. 14-15 : ill

Quasi-steady circulation regimes in the Baltic Sea

Liblik, Taavi; Väli, Germa; Salm, Kai; Laanemets, Jaan; Lilover, Madis-Jaak; Lips, Urmas *Ocean science* 2022 / p. 857-879 <https://doi.org/10.5194/os-18-857-2022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Recently accelerated oxygen consumption rates amplify deoxygenation in the Baltic Sea - observations and model results [Online resource]

Meier, H.E. Markus; Väli, Germa; Naumann, Michael; Eilola, Kari; Frauen, Claudia 2nd Baltic Earth Conference The Baltic Sea in Transition : Helsingør, Denmark, 11 to 15 June 2018 : conference proceedings 2018 / p. 184 : ill https://www.baltic-earth.eu/publications/IBESPublications/No_13_Helsingor_Proceedings/2ndBalticEarthConferenceProceedings_IBESP_No13_web.pdf

Recently accelerated oxygen consumption rates amplify deoxygenation in the Baltic Sea

Meier, H. E. Markus; **Väli, Germo**; Naumann, Michael; Eilola, Kari; Frauen, Claudia Journal of geophysical research : oceans 2018 / p. 3227-3240 : ill <https://doi.org/10.1029/2017JC013686> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A regime shift toward a more anoxic environment in a Eutrophic sea in Northern Europe

Almroth-Rosell, Elin; Wåhlström, Irene; **Väli, Germo** Frontiers in marine science 2021 / art. 799936

<https://doi.org/10.3389/fmars.2021.799936> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

River runoff forcing for ocean modeling within the Baltic Sea Model intercomparison project

Väli, Germo; Meier, H.E. Markus; Placke, Manja; Dieterich, Christian 2019 <http://doi.io-warnemuende.de/10.12754/msr-2019-0113>

<http://doi.io-warnemuende.de/doi/2019/msr-2019-0113/msr-2019-0113.pdf>

Rotation of floating particles in submesoscale cyclonic and anticyclonic eddies : a model study for the southeastern Baltic Sea

Zhubas, Victor; **Väli, Germo**; Kuzmina, Natalia Ocean science 2019 / p. 1691-1705 <https://doi.org/10.5194/os-15-1691-2019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Rotation of floating particles in submesoscale cyclonic and anticyclonic eddies : a model study for the southeastern Baltic Sea

Zhubas, Victor; **Väli, Germo**; Kuzmina, Natalia 3rd Baltic Earth Conference : Earth system changes and Baltic Sea coasts, To be held in Jastarnia, Hel Peninsula, Poland, 1 to 5 June 2020, Held online, 2-3 June 2020 : Conference proceedings 2020 / p. 28-29 : ill "proceedings"

Seasonality of submesoscale coherent vortices in the Northern Baltic Proper : a model study

Väli, Germo; Zhubas, Victor Фундаментальная и прикладная гидрофизика 2021 / p. 122-129

<https://doi.org/10.7868/S2073667321030114> [Journal metrics at Scopus](#) [Article at Scopus](#)

Simulated halocline variability in the Baltic Sea and its impact on hypoxia during 1961-2007

Väli, Germo; Meier, H. E. Markus; **Elken, Jüri** Journal of Geophysical Research: Oceans 2013 / p. 6982 - 7000

<https://doi.org/10.1002/2013JC009192> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Simulation of mesoscale structure of a coastal upwelling event and related nutrient transport in the southern Gulf of Finland

Väli, Germo; Zhubas, Victor; **Elken, Jüri**; Lips, Inga; Lips, Urmas; Laanemets, Jaan BSSC 2009 : [7th Baltic Sea Science Congress 2009] : August 17-21, 2009, Tallinn, Estonia : abstract book 2009 / p. 42

Simulation of mesoscale structures and nutrient transport during summer upwelling events in the Gulf of Finland in 2006

Laanemets, Jaan; **Väli, Germo**; Zhubas, Victor; **Elken, Jüri**; Lips, Inga; Lips, Urmas Boreal environment research 2011 / p. 15-26 : ill

https://www.researchgate.net/publication/244486520_Simulation_of_mesoscale_structures_and_nutrient_transport_during_summer_upwelling_events_in_the_Gulf_of_Finland_in_2006

Simulation of nutrient transport from different depths during an upwelling event in the Gulf of Finland

Väli, Germo; Zhubas, Victor; Laanemets, Jaan; **Elken, Jüri** Oceanologia 2011 / p. 431-448 : ill

<https://www.sciencedirect.com/science/article/pii/S0078323411500491>

Spatiotemporal variability of microplastics in the Eastern Baltic Sea

Mishra, Arun; Buhhalko, Natalja; Lind, Kati; Lips, Inga; Liblik, Taavi; **Väli, Germo**; Lips, Urmas Frontiers in marine science 2022 / art. 875984 <https://doi.org/10.3389/fmars.2022.875984> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)

[Article at WOS](#)

Striped texture of submesoscale fields in the northeastern Baltic Proper : results of very high-resolution modelling for summer season

Zhubas, Victor; **Väli, Germo**; Kuzmina, Natalia Oceanologia 2022 / p. 1-21 : ill <https://doi.org/10.1016/j.oceano.2021.08.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Submesoscale processes in the surface layer of the central Baltic Sea: A high-resolution modelling study

Väli, Germo; Meier, H.E. Markus; Liblik, Taavi; Radtke, Hagen; Klingbeil, Knut; Gräwe, Ulf; Lips, Urmas Oceanologia 2024 / p. 78-90 <https://doi.org/10.1016/j.oceano.2023.11.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Submesoscale structures related to upwelling events in the Gulf of Finland, Baltic Sea (numerical experiments)

Väli, Germo; Zhubas, Victor; Lips, Urmas; Laanemets, Jaan Journal of marine systems 2017 / p. 31-42 : ill

<https://doi.org/10.1016/j.jmarsys.2016.06.010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The Baltic Sea Model Intercomparison Project (BMIP) - a platform for model development, evaluation, and uncertainty assessment

Gröger, Matthias; Placke, Manja; Meier, H. E. Markus; Börgel, Florian; Brunnabend, Sandra-Esther; Dutheil, Cyril; Gräwe, Ulf; Hieronymus, Magnus; Neumann, Thomas; **Väli, Germo** Geoscientific model development 2022 / p. 8613-8638
<https://doi.org/10.5194/gmd-15-8613-2022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Upwelling characteristics in the Gulf of Riga (Baltic Sea) : multiple data source approach

Skudra, Maris; **Väli, Germo**; Ikauniece, Anda; Papirtis, Miks Frontiers in marine science 2023 / art. 1244643
<https://doi.org/10.3389/fmars.2023.1244643> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Variability of bottom friction velocity along the inflow water pathway in the Baltic Sea

Zhurbas, Victor; **Väli, Germo**; Golenko, Nikolay; Paka, Vadim Journal of marine systems 2018 / p. 50-58 : ill
<https://doi.org/10.1016/j.jmarsys.2018.04.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Variability of stratification and currents at the submesoscale detected from CTD and current profiles in the central Gulf of Finland

Lilover, Madis-Jaak; Lips, Urmas; Liblik, Taavi; Suhhova, Irina; **Väli, Germo** Boreal Environment Research 2025

Wind-controlled transport of saltwater in the Southeastern Baltic Sea : a model study

Zhurbas, Victor; **Väli, Germo** Frontiers in marine science 2022 / art. 835656 <https://doi.org/10.3389/fmars.2022.835656> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Winter re-stratification events and their consequences in the NE Baltic Sea

Liblik, Taavi; **Väli, Germo**; Künnis-Beres, Kai; Lilover, Madis-Jaak; Lips, Inga Abstracts : [BSSC 2019] 2019 / p. 208
https://www.su.se/polopoly_fs/1.446756.1566224624!/menu/standard/file/abstracts_A5_ny.pdf

The winter stratification phenomenon and its consequences in the Gulf of Finland, Baltic Sea

Liblik, Taavi; **Väli, Germo**; Lips, Inga; Lilover, Madis-Jaak; Kikas, Villu; Laanemets, Jaan Ocean Science 2020 / p. 1475 - 1490
<https://doi.org/10.5194/os-16-1475-2020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)