CURRICULUM VITAE

Vitali Sharmar

Key Skills

Geophysical modelling, operational wave and ice forecast for navigation assistance in the Arctic Ocean, Sea Surface State Monitoring via Wave buoys, X-band radars, Satellite systems, Renewable energy

Professional Experience

Euro-Mediterranean Center on Climate Change (CMCC)	Lecce			
Postdoctoral Scientist Februar	ary 2025-Present			
• Development of unstructured-grid global configuration for ensemble climate projection				
• Development of high-resolution global coastal configuration for short term operational				
forecasting purpose				
 Prototype coupling procedure with other physics based on AI 				
Shirshov Institute of Oceanology of the Russian Academy of Sciences Moscow				
(IORAS)				
Senior Research Scientist November	er 2017-January 2025			
 Numerical modeling of global wind wave climate based on WaveWatch III (WW3) 				
 Research, development of floating platforms such as SAWS (Sea Air Wave Station) 				
• Research and development of a low-cost real time X-band radar system for operational identification of wavy conditions SeaView				
 Regional modeling of the North Atlantic and Arctic wave conditions based on WRF-ARW 				
• Research and development of the forecasting system for sea ice drift in the Arctic Ocean based on				
coupling WRF-ARW, WW3, NEMO+SI ³ models in high resolution				
Arctic and Antarctic Research Institute (AARI)	Saint Petersburg			
Technician September 2014-September 2016				
 Laboratory of ice physics and dynamics 				
• Organisation of expedition to the Kara Sea (summer season 2015) in Russian Arctic				
 Since September 2015 Laboratory of ice regime and forecasting 				
Education				
Shireboy Institute of Oceanalogy of the Ducsian Academy of Sciences (IODAS)				
Ph.D. Oceanography 2023 No.	wember 2020			
Air-Sea interaction	Weinber 2020			
 Modelling observing and forecasting marine conditions (wavy conditions) 				
PhD thesis: "Climatic variability of wind-waves in modern climate according				
to numerical modeling and field observations"				
University of Hemburg (UHH)				
Master of Sciences Mathematics Informatics and Natural Sciences	ptober 2017			
• WS 16/17 studied in CAU in Kiel at the Faculty of Mathematics and Natural	2017			
Sciences				
 Master's thesis: "Analysis of wind-wave spectra under fetch-limited and 				
non fetch-limited conditions"				

Saint Petersburg State University (SPBU) July 2015 Bachelor of Sciences, Hydrometeorology, Institute of Earth Sciences July 2015 Physical oceanography (waves, tides, currents, sea ice, eddies) July 2015 Multivariate Statistical Analysis of Hydrometeorological fields Delability Theorem 1 Mathematical Statistical

Probability Theory and Mathematical Statistics

Park

Technical Skill

 Python (advanced) 	 MPI/OpenMP libraries (advanced)	 WaveWatch III (advanced) 	
 Fortran (basic) 	 High performance comp 	uting (advanced)	 cloud computing(advanced) 	
Teaching experience				
• Assistant at the Department of Computer Science, AI Technologies in Arctic Research 64 hours				
Faculty of Mathematics and Mechanics (SPBU)				
Languages				
English		fluent		
Deutsche		beginner		
Certifications				
Subsurface Mooring Training Course IOCAS, China,		16-22 July 2023		
Short-Range Weather Application Training 2023: Running V2.1 Containers		7 April 2023		
in AWS				
EPIC Workshop: Running the UFS Short Range Weather Application on the		6 June 2022		
Cloud				
AI and Weather Radars from AMS Short Courses		17 May 2021		
Waves Summer School presented at the University of Marvland. College			9 -13 July 2018	

Publications

• Ezhova E.A., Gavrikov A.V., **Sharmar V.D.**, Tilinina, N.D., Suslov A.I., Koshkina V.S., Krinitskiy M.A., Gladyshev V.S. and Borisov M.A., 2023: "Obtaining Wind Waves Parameters Using Ship Radar", *Oceanology*, *63* (Suppl 1), pp.S42-S53.

[•] Sharmar V.D., Tereschenkov V.P., Gavrikov A. V., Sinitzin A. V., Kravchishina M. D., Klyuvitkin A. A., Novigatsky A. N., Tilinina N. D., Pisarev S. V., Gulev S. K, 2025: "Moored Meteorological Buoy as Part of National Green-House Monitoring System in The Barents Sea", *Oceanology*, *65(1)*, pp.161-166.

[•] Erikson L., Morim J., Hemer M., Young I., Wang X. L., Mentaschi L., Mori N., Semedo A., Stopa J., Grigorieva V., Gulev S., Aarnes O., Bidlot J.-R., Breivik O., Bricheno L., Shimura T., Menendez M., Markina M., **Sharmar V.**, Trenham, C., Wolf, J., Appendini, C., Caires, S., Groll, N., and Webb, A., 2022: "Global ocean wave fields show consistent regional trends between 1980 and 2014 in a multi-product ensemble", *Communications Earth and Environment*, 3, 320.

[•] Sharmar V., Markina M., Gulev S., 2020: "Global Ocean Wind Wave Model Hindcasts Forced by Different Reanalyses: a Comparative Assessment", *Journal of Geophysical Research: Oceans*, 125, e2020JC01671