

Curriculum Vitae

Dr.sc. Ivica Janeković
Oceans Graduate School and The UWA Oceans Institute
The University of Western Australia
Cnr Fairway and Service Road 4, M470
Crawley WA 6009, AUSTRALIA
Email: ivica.janekovic@uwa.edu.au
Tel: (+618) 6488-8109

Date and place of birth: 11. July, 1972, Karlovac, Croatia, EU

Nationality: dual Australian and Croatian

Professional Positions and Employment:

2021 – present	Research Associate Professor, The University of Western Australia, Perth, Australia.
2015 - 2021	Research Assistant Professor, The University of Western Australia, Perth, Australia.
2015 – 2018	Senior Research Scientist - Advisor, Laboratory for physical oceanography and chemistry of aquatic systems, Division for Marine and Environmental Research, Ruđer Bošković Institute, Zagreb, Croatia.
2012 – 2015	Senior Research Associate, Satellite Oceanography Group, Division for Marine and Environmental Research, Ruđer Bošković Institute, Zagreb, Croatia.
2011 - 2012	Research Associate, Marine and Environmental Research, Ruđer Bošković Institute, Zagreb, Croatia.
2009 - 2011	Post-doc Research Fellow at University of Hawai'i, Mānoa, Physical Oceanography, US.
1997 - 2009	Research Scientist, Division for Marine and Environmental Research, Ruđer Bošković Institute, Zagreb, Croatia.

University Education:

- Postdoc fellow, 2009-2011, University of Hawai'i at Mānoa, USA. Working on Pacific ROMS ocean model development and implementation using 4D-Var Data assimilation and high-resolution nesting. Supervisor Prof. Brian Powell.
- PhD, Physics, 2006, Dissertation: "Three-dimensional assimilative modelling of Adriatic tides", Faculty of Natural Sciences, University of Zagreb.
- MSc, Oceanology, 2001, Master these: "Tides of the Adriatic Sea – numerical model and empirical analysis", Faculty of Natural Sciences, University of Zagreb.
- BSc, Physics (field geophysics), 1997, these: „Determination of Qc factor for Zagreb area using coda waves”, Faculty of Natural Sciences, University of Zagreb.

Research Interests:

Inside my research I combine empirical, theoretical and numerical knowledge to understand major ocean processes in continental shelf oceans and the adjacent seas. I am developing and implementing different types of regional ocean/wave/atmosphere modelling systems including improvements through data assimilation techniques. My special interest is in real-time applications and operational coastal ocean forecasting systems using atmosphere-ocean-wave 2-way coupled models and quantify their predictability and uncertainty. I am working on data assimilation in coastal and ocean-wide basin systems using advanced 4D-Var techniques and ROMS model, optimization on HPC supercomputer facilities. Mentioned methods enable me to combine field measurements and model dynamics in a dynamical and consistent way, better than each of them separately. Downscaling dynamics using 2-way nesting – high-resolution approach for ocean simulations with focus on advanced numerical techniques combined with data assimilation is another example of my research activity. I keep strong connection and develop new interactions and collaborations with different

fields in the oceanography (i.e. biological - animal tagging groups) to advance interdisciplinary research. Even though my current position at the UWA is research intensive, I strive to teach students interestingly and intriguingly, using a modern and interactive approach, accommodating the level and complexity of lectures to the student's capabilities. I look at the mentoring as a dynamic process involving and appreciating student's feedback.

Teaching activity:

- Teaching ENVE2607 unit (Modelling in Environmental Engineering) at the UWA.
- Supervising PhD and Master of Professional Engineering (MPE) students at the UWA.
- Jointly proposed unit "Advanced topics in numerical ocean modelling" at Ocean Graduate School, UWA.
- Teaching at doctorate study level in Oceanology unit "Numerical modelling in oceanography", University of Zagreb, Croatia.
- Actively mentoring PhD students in Oceanology study in Croatia.

Professional activity:

Reviewer for major journals: Journal of Physical Oceanography, Journal of Geophysical Research, Meteorology and Atmospheric Physics, Ocean Dynamics, Ocean Modelling, Marine Geology, Ocean Science Discussion, Pure and Applied Geophysics, Continental Shelf Research, Estuarine, Coastal and Shelf Science, Annales Geophysicae.

Memberships: Board member of doctorate study of Oceanology at the University of Zagreb, Croatia.
Board member for Pawsey Supercomputer Merit Allocation.
Scientific board member for natural science and research of the Adriatic Sea, Croatian Academy of Science and Art.

Reviewer of competitive research grants:

National Science Foundation (US), National Science Foundation (Croatia)

Developer and team core member of SCHIMS ocean model: <http://ccrm.vims.edu/schismweb/team.html>

Workshops and training courses:

1. "ROMS Workshop", Hobart, Australia, 2016.
2. "ROMS Workshop", Rovinj, Croatia, 2014.
3. "Workshop on the ROMS 4D-Var Data Assimilation Systems for Advanced ROMS Users", The Simularium, Baskin School of Engineering, University of California Santa Cruz, 2010.
4. "ROMS Workshop", 2010 ROMS/TOMS User Workshop, Hawai'i Imin International Conference Center, University of Hawai'i at Manoa, Honolulu, Hawaii, 2010.
5. "ROMS Workshop", Grenoble, France, 2008.
6. "Coastal Ocean Modeling", Gordon Research Conferences, New London, NH, SAD, 2007.
7. "Coastal dynamics modelling", Toulon, France, 2006.
8. "Optimal analysis - training course – Adricosm EXT", Trieste, Italy, 2006.
9. "The Third International Workshop on Unstructured Grid Numerical Modelling of Coastal Shelf and Ocean Flows", Toulouse, France, 2004.
10. "Venice Adriatic Workshop", Venece, Italy, 2004
11. "Rovinj Oceanographic Workshop", Rovinj, Croatia, 2003.
12. "Data assimilation for the Earth system – NATO ASI", Maratea, Italy, 2002.
13. "The Oxford/RAL Spring School in Quantitative Earth Observation", topic „Data assimilation“, Oxford, UK, 2001.
14. "Oceans from Space", Venice, Italy, 2000.
15. "Oceanography of the Adriatic Sea", Trieste, Italy, 1988.

Project involvement and management:

- 2022 - Chief investigator for “Project 5 Hydrodynamics: provision of multi-decadal ocean boundary conditions and field measurements”, West Port, WA.
- 2021 - Principal investigator and leader for “Simultaneous modelling atmosphere-ocean interactions to estimate tropical cyclone effects in ocean”, Pawsey Supercomputer research project, WA.
- 2021 - Principal investigator for “Improving Ocean Current Forecasting Through Deep Learning Techniques”, The University of Western Australia and Shell Development Australia Pty Ltd.
- 2021 - Chief investigator for “Development and testing of high frequency lora drifters”, RiverLab project UWA.
2021. - Chief investigator for “High frequency GSP drifters – from prototype to practice”, The University of Western Australia, Ocean Institute. Ocean Supporters Fund.
- 2020 - Principal investigator and leader for “Data Assimilation for the Western Australia using Regional Ocean Modeling System (ROMS)”, Pawsey Supercomputer research project, WA.
- 2018 - 2019 “Develop/Enhance the Marine Virtual Laboratory (MARVL) to Provide the Information Infrastructure in Support of the National Ocean Modelling System”, University of Tasmania ex University of Queensland ex NCRIS, Australia.
- 2018 – 2020 Principal investigator and leader for industry funded project “Circulation Modelling of tropical cyclone-driven currents for Western Australia criteria estimation”, Woodside Energy Limited.
- 2014 - 2018 Principal investigator and leader, Exploring the Adriatic Sea Dynamics using Advanced Data Assimilation Methods and Measurements (ADAM-ADRIA), Croatian Science Foundation, Croatia.
- 2018 - 2022 Principal investigator and leader, ECMWF Supercomputer Centre project "PSAS Data Assimilation for the Adriatic Sea using Regional Ocean Modelling System (ROMS)", UK.
- 2018 Principal investigator and leader, Pawsey Supercomputer Centre project “Advanced ocean-atmosphere modelling of western Australian seas”, Australia.
- 2016 – 2017 Principal investigator and leader for the project “Data Assimilation for the Western Australia using Regional Ocean Modelling System (ROMS)” at Pawsey Supercomputer facility, Australia.
- 2016 – 2017 Principal investigator and leader for the project “Optimising ROMS data assimilation model for CRAY XC40 supercomputer system”, Pawsey uptake project, Australia.
- 2014 – 2018 Near real-time ocean-atmosphere modelling system ROMS/WRF for central WA at UWA, Australia. <http://coastalocanography.org/>
- 2014 – 2018 “Developing better predictions for extreme water”, Bushfire and Natural Hazards Cooperative Research Centre, UWA, Australia.
- 2006 – 2014 Ministry of science and technology, Rep. of Croatia: “Mathematical modelling of circulation and remote sensing of boundary processes”, Croatia.
- 2002 – 2006 Ministry of science and technology, Rep. of Croatia: “Study of tidal and long periodic dynamic of the northern Adriatic Sea”, Croatia.
- 1997 – 2002 Ministry of science and technology, Rep. of Croatia: “Study of processes and ecological relations in the Adriatic Sea with scope to satellite detection and mathematical modelling of physical phenomena in the Adriatic Sea”, Croatia.
- 2009 – 2012 “NOAA Assessment of Conditions Relevant to Fate and Transport of Munitions Constituents in Hawaiian Waters (Ordnance Reef)”, US.
- 2011 – 2012 CEROS "Simultaneously Improving Glider Position Estimates and Ocean State Forecasts", US.
- 2007 – 2009 Principal Investigator for Rudjer Boskovic Institute, CMER, Zagreb, Croatia at World Bank Project “Monitoring of the Adriatic Sea”, Croatia.
- 2008 Principal Investigator, “Impact assessment and effects of thermal source into the ocean (case study for LNG terminal Omisalj, Croatia)”, Croatia.

2001 – 2002 International project “Coastal zone management plan for Croatia – with particular focus on mariculture”, Croatia.

International field experiments/cruises:

2014 - 2018 Chief scientist at RV Vila Velebita for “Exploring the Adriatic Sea Dynamics using Advanced Data Assimilation Methods and Measurements (ADAM-ADRIA), Croatian Science Foundation, Croatia.
2011 NOAA deep string ADCP deployment/recovery for Ordnance Reef Project, Hawai’i, US
2002- 2003 International experiment "ADRIA02-03/ACE ", RV Alliance.

Conference organisation (convenor):

Organizing and hosting European 2014 ROMS Workshop in Rovinj, Croatia, 2014.

Research and Academic supervision:

2021 – current Software engineering theses students: Roarke Holland, Fubin Huang, Ray Xiao (UWA)
2017 – current PhD student Toan Duc Bui (joint supervision with Prof. Pattiaratchi).
2016 – current PhD student Syeda Wahida Rafiq (joint supervision with Prof. Pattiaratchi).
2016 Master of Professional Engineering (MPE):
Sajidul Haque, Liam DeLucia, Caleb Zhao (joint supervision with Prof. Pattiaratchi).
2015 Honours theses students: James Dracup, Alexander Clapin, Mei Ying, Teh Zhao (joint supervision with Prof. Pattiaratchi).
2015 - 2019 PhD student mr.sc. Maja Bubalo at Oceanology postgraduate study at University of Natural Sciences, Zagreb, Croatia, EU.

Contributions to books (refereed):

Ciglencečki Irena, Ljubešić Zrinka, Janeković Ivica, Mirna Batistić. 2017. Chapter: Rogoznica Lake, a Unique Euxinic Marine Lake on the Dalmatian Adriatic Coast (Croatia) that Fluctuates Between Anoxic-Holomictic and Meromictic Conditions. Ecology of Meromictic Lakes, Editors: Gulati, Ramesh D., Zadereev, Egor S., Degermendzhi, Andrei G. (Eds.), ISBN 978-3-319-49141-7.

Refereed papers in Journals listed in Science Citation Indexed database:

1. Sequeira, A. M. M., O’Toole, M., Keates, T. R., McDonnell, L. H., Braun, C. D., Hoenner, X., Jaine, F. R. A., Jonsen, I. D., Newman, P., Pye, J., Bograd, S. J., Hays, G. C., Hazen, E. L., Holland, M., Tsonos, V. M., Blight, C., Cagnacci, F., Davidson, S. C., Dettki, H., ...Janekovic, I.,... Weise, M. 2021. A standardisation framework for bio-logging data to advance ecological research and conservation. *Methods in Ecology and Evolution*. <https://doi.org/10.1111/2041-210X.13593>.
2. Johnson, A. L. A., Valentine, A. M., Schoene, B. R., Leng, M. J., Sloane, H. J., & Janekovic, I. 2021. Growth-increment characteristics and isotopic (δ O-18) temperature record of sub-thermocline *Aequipecten opercularis* (Mollusca: Bivalvia): evidence from modern Adriatic forms and an application to early Pliocene examples from eastern England. *Palaeogeography Palaeoclimatology Palaeoecology*, 561, [110046]. <https://doi.org/10.1016/j.palaeo.2020.110046>.
3. Bubalo, M., Janeković, I., & Orlić, M. 2021. Meteotsunami-related flooding and drying: numerical modeling of four Adriatic events. *Natural Hazards*. <https://doi.org/10.1007/s11069-020-04444-4>.
4. Uvanovic, H., Schone, B. R., Markulin, K., Janekovic, I., & Peharda, M. 2021. Venerid bivalve *Venus verrucosa* as a high-resolution archive of seawater temperature in the Mediterranean Sea. *Palaeogeography Palaeoclimatology Palaeoecology*, 561, [110057]. <https://doi.org/10.1016/j.palaeo.2020.110057>.

5. Rafiq, S., Pattiaratchi, C., & Janeković, I. 2020. Dynamics of the land–sea breeze system and the surface current response in South-West Australia. *Journal of Marine Science and Engineering*, 8(11), 1-28. [931]. <https://doi.org/10.3390/jmse8110931>.
6. Janekovic, I., Mihanović, H., Vilibić, I., Grčić, B., Ivatek-Šahdan, S., Tudor, M., Đakovac, T., 2020. Using multi-platform 4D-Var data assimilation to improve modelling of Adriatic Sea dynamics. *Ocean Modelling*, 146, ISSN 1463-5003, 101538, doi:10.1016/j.ocemod.2019.101538.
7. Čanković, M., Žučko, J., Dupčić Radić, I., Janekovic, I., Petrić, I., Ciglencečki, I., Collins, G., 2019. Microbial diversity and long-term geochemical trends in the euxinic zone of a marine, meromictic lake, *Systematic and Applied Microbiology*, 42, 6, 126016, ISSN 0723-2020, <https://doi.org/10.1016/j.syapm.2019.126016>.
8. Bubalo, M., Janekovic, I., Orlić, M., 2019. Simulation of flooding and drying as an essential element of meteotsunami modelling, *Continental Shelf Research*, 184, 81-90, ISSN 0278-4343, <https://doi.org/10.1016/j.csr.2019.07.003>.
9. Peharda, M., Walliser, E.O., Markulin, K., Purroy, A., Uvanović, H., Janekovic, I., Župan, I., Vilibić, I., Schöne, B.R., 2019. *Glycymeris pilosa* (Bivalvia) – A high-potential geochemical archive of the environmental variability in the Adriatic Sea, *Marine Environmental Research*, 150, 104759, ISSN 0141-1136, <https://doi.org/10.1016/j.marenvres.2019.104759>.
10. Mahjabin, T., Pattiaratchi, C., Hetzel, Y., Janekovic, I., 2019. Spatial and Temporal Variability of Dense Shelf Water Cascades along the Rottnest Continental Shelf in Southwest Australia, *J. Mar. Sci. Eng.*, 7, 30, DOI:10.3390/jmse7020030.
11. Markulin, K., Peharda, M., Mertz- Kraus, R., Schoene, B. R., Uvanović, H., Kovač, Ž., Janeković, I., 2019. Trace and minor element records in aragonitic bivalve shells as environmental proxies, *Chemical Geology*, 507, DOI:10.1016/j.chemgeo.2019.01.008.
12. Mihanović, H., Janeković, I., Vilibić, I., Kovacevic V., Benis, M., 2018. Modelling Interannual Changes in Dense Water Formation on the Northern Adriatic Shelf, *Pure and Applied Geophysics*, 175: 4065, DOI:10.1007/s00024-018-1935-5.
13. Vilibić, I., Mihanović, H., Janeković, I., Denamiel, C., Poulain, P.-M., Orlić, M., Dunić, N., Dadić, V., Pasarić, M., Muslim, S., Gerin, R., Matić, F., Šepić, J., Mauri, E., Kokkini, Z., Tudor, M., Kovač, Ž., Džoić, T., 2018. Wintertime dynamics in the coastal northeastern Adriatic Sea: the NAdEx 2015 experiment, *Ocean Science*, 14, 237-258, DOI:10.5194/os-14-237-2018.
14. Kraus R. et al., 2018. Oceanographic characteristics of the Adriatic Sea – Support to secondary HAOP spread through natural dispersal, *Marine Pollution Bulletin*, DOI:10.1016/j.marpolbul.2018.10.062.
15. Kraus R. et al., 2018. Strategy of port baseline surveys (PBS) in the Adriatic Sea. *Marine Pollution Bulletin*, DOI:10.1016/j.marpolbul.2018.08.067.
16. Peharda, M., Thébault, J., Markulin, K., Schöne, B.R., Janeković, I., Chauvaud, L., 2018. Contrasting shell growth strategies in two Mediterranean bivalves revealed by oxygen-isotope ratio geochemistry: The case of *Pecten jacobaeus* and *Glycymeris pilosa*, *Chemical Geology*, DOI:10.1016/j.chemgeo.2017.09.029.
17. Međugorac, I., Orlić, M., Janeković, I., Pasarić, Z., Pasarić, M., 2018. Adriatic storm surges and related cross-basin sea-level slope, *Journal of Marine Systems*, 181,79-90, DOI:10.1016/j.jmarsys.2018.02.005.
18. Bubalo, M., Janeković, I., Orlić, M., 2018. Chrystal and Proudman resonances simulated with three numerical models, *Ocean Dynamics*, 68, 4–5, 497–507, DOI:10.1007/s10236-018-1146-8.
19. Ivatek-Šahdan, S., Stanešić, A., Tudor, M., Odak-Plenković, I., Janeković, I., 2018. Impact of SST on heavy rainfall events on eastern Adriatic during SOP1 of HyMeX, *Atmospheric Research*, 200, 36-59, DOI:10.1016/j.atmosres.2017.09.019.
20. Kokkini, Z., Gerin, R., Poulain, P., Mauri, E., Pasarić, Z., Janeković, I., Pasarić, M., Mihanović, H., Vilibić, I., 2017. A multiplatform investigation of Istrian Front dynamics (north Adriatic Sea) in winter 2015, *Mediterranean Marine Science*, 18, 2, 344-354, DOI:10.12681/mms.1895.
21. Vilibić, I., Mihanović, H., Janeković, I., Šepić, J., 2016. Modelling the formation of dense water in the northern Adriatic: Sensitivity studies, *Ocean Modelling*, 101, 17-29, DOI:10.1016/j.ocemod.2016.03.001.
22. Vilibić, I., Šepić, J., Mihanović, H., Kalinić, H., Cosoli, S., Janeković, I., Žagar, N., Jesenko, B., Tudor, M., Dadić, V., Ivanković, D., 2016. Self-Organizing Maps-based ocean currents forecasting system, *Scientific Reports*, 6, 22924, DOI:10.1038/srep22924.
23. Šepić, J., Međugorac, I., Janeković, I., Dunić, N., Vilibić, I., 2016. Multi-meteotsunami event in the Adriatic Sea generated by atmospheric disturbances of 25–26 June 2014, *Pure and Applied Geophysics*, 1-22, DOI:10.1007/s00024-016-1249-4.
24. Tudor, M., Janeković, I., 2016. Modelling origin and transport fate of waste materials on the southeastern Adriatic coast (Croatia), *Geofizika*, DOI:10.15233/gfz.2016.33.3.
25. Ciglencečki, I., Janeković, I., Marguš, M., Bura-Nakić, E., Carić, M., Ljubešić, Z., Batistić, M., Hrustić, E., Dupčić, I., Garić, R., 2015. Impacts of extreme weather events on highly eutrophic marine ecosystem (Rogoznica Lake, Adriatic coast), *Continental Shelf Research*, 108, 144-155, DOI:10.1016/j.csr.2015.05.007.
26. Janeković, I., Mihanović, H., Vilibić, I., Tudor, M., 2014. Extreme cooling and dense water formation estimates in open and coastal regions of the Adriatic Sea during the winter of 2012, *Journal of Geophysical Research*, 119, DOI:10.1002/2014JC009865.

27. Janeković, I., Powell, B. S., Matthews, D., McManus, M. A., Sevadjan, J., 2013. 4D-Var Data Assimilation in a Nested, Coastal Ocean Model: A Hawaiian Case Study, *Journal of Geophysical Research*, 118, 1–14, DOI:10.1002/jgrc.20389.
28. Dutour-Sikirić, M., Roland, A., Janeković, I., Tomažić, I., Kuzmić, M., 2013. Coupling of the Regional Ocean Modeling System (ROMS) and Wind Wave Model, *Ocean Modelling*, 72, 59-73.
29. Dutour-Sikirić, M., Roland, A., Tomažić, I., Janeković, I., 2012. Hindcasting the Adriatic Sea near-surface motions with a coupled wave-current model, *Journal of Geophysical Research*, 117, C00J36-C00J3.
30. Janeković, I., Powell, B., 2012. Analysis of Imposing Tidal Dynamics to Nested Numerical Models, *Continental Shelf Research*, 34, 30-40.
31. Powell, B.S., Janeković, I., Carter, G.S., Merrifield, M.A., 2012. Sensitivity of Internal Tide Generation in Hawaii, *Geophysical Research Letters*, DOI:10.1029/2012GL05172.
32. Godrijan, J., Marić, D., Imešek, M., Janeković, I., Schweikert, M., Pfannkuchen, M., 2012. Diversity, occurrence and ecology of the diatom genus *Bacteriastrium Shadbolt* (Bacillariophyta) in the northern Adriatic Sea, with the description of *B. jadrantum* sp. nov., *Botanica Marina*, 55 (2012), 4, 1-12.
33. Matthews, D.K., Powell, B., Janeković, I., 2012. Analysis of Four-dimensional Variational State Estimation of the Hawaiian Waters, *Journal of Geophysical Research*, DOI:10.1029/2011JC007575.
34. Lončar, G., Beg-Paklar, G., Janeković, I., 2012. Numerical Modelling of Oil Spills in the Area of Kvarner and Rijeka Bay (The Northern Adriatic Sea), *Journal of Applied Mathematics JAM*, 1-20.
35. Lončar, G., Beg Paklar, G., Janeković, I., 2011. Influence of density stratification on the effluent plume dynamics, *Oceanologia*, 53, 2, 565-585.
36. Janeković, I., Sikirić, M.D., Tomažić, I., Kuzmić, M., 2010. Hindcasting the Adriatic Sea surface temperature and salinity: A recent modeling experience, *Geofizika*, 27, 2, 85-100.
37. Orlić, M., Belušić, D., Janeković, I., Pasarić, M., 2010. Fresh evidence relating the great Adriatic surge of 21 June 1978 to mesoscale atmospheric forcing, *Journal of Geophysical Research*, 115, C06011, DOI:10.1029/2009JC005777.
38. Sikirić, M.D., Janeković, I., Kuzmić, M., 2009. A new approach to bathymetry smoothing in sigma-coordinate ocean models, *Ocean Modelling*, DOI:10.1016/j.ocemod.2009.03.009.
39. Book, J.W., Martin, P.J., Janeković, I., Kuzmić, M., Wimbush, M., 2009. The Vertical Structure of Bottom Ekman Tidal Flows: Observations, Theory, and Modeling from the Northern Adriatic, *Journal of Geophysical Research*, 114, C01S06, DOI:10.1029/2008JC004736.
40. Signell, R.P., Carniel, S., Chiggiato, J., Janeković, I., Pullen, J.D., Sherwood, C.R., 2008. Collaboration Tools and Techniques for Large Model Datasets, *Journal of Marine Systems*, DOI:10.1016/j.jmarsys.2007.02.013.
41. Kuzmić, M., Janeković, I., Book, J., Martin, J., Doyle, J., 2007. Modeling the northern Adriatic double-gyre response to intense bora wind: A revisit, *Journal of Geophysical Research*, 111, C03S13, DOI:10.1029/2005JC003377.
42. Chavanne, C., Janeković, I., Flament, P., Kuzmić, M., Poulain, P.-M., Gurgel, K.W., 2007. Tidal Currents in the Northern Adriatic Sea: High Frequency Radar Observations and Numerical Model Predictions, *Journal of Geophysical Research*, 112, C03S21, DOI:10.1029/2006JC003523.
43. Dorman, C., Book, J., Carniel, S., Cavaleri, L., Chiggiato, J., Doyle, J., Grbec, B., Haack, T., Janeković, I., Lee, C., Malačić, V., Orlić, M., Pullen, J., Russo, N., Paschini, E., Sclavo, M., Vilibić, I., 2006. Winter 2003 Marine Atmospheric Conditions and the Bora over the Northern Adriatic, *Journal of Geophysical Research*, 111, C03S03, DOI:10.1029/2005JC003134.
44. Janeković, I., Antonić, O., Križan, J., Bukovec, D., Bakran-Petricioli, T., 2006. Modelling basic physical parameters in the Adriatic Sea as the basis for marine habitats mapping, *Ecological Modelling*, 194, 62-66.
45. Lyons, D., Janeković, I., Precali, R., Supić, N., 2006. Northern Adriatic Sea Hydrographic Conditions from October 2002 to September 2003 and its Response to the European Climatic Heating Anomaly of Summer 2003: A Statistical Model Based Approach, *Acta Adriatica*, 47 (Suppl.): 81 - 96.
46. Bakran-Petricioli, T., Antonić, O., Bukovec, D., Petricioli, D., Janeković, I., Križan, J., Kušan, V., Dujmović, S., 2005. Modelling spatial distribution of Croatian marine habitats, *Ecological Modelling*, 191, 96-105.
47. Janeković, I., Kuzmić, M., 2005. Numerical simulation of the Adriatic Sea principal tidal constituents, *Annales Geophysicae*, 23, 3207-3218.
48. Janeković, I., Tudor, M., 2005. The Adriatic Sea wave response to severe bura wind, *Croatian Meteorological Journal*, 40, 316-319.
49. Kuzmić, M., Janeković, I., Ivančanin-Picek, B., Trošić, T., Tomažić, I., 2005. Severe north-eastern Adriatic bura events and circulation in greater Kvarner Region, *Croatian Meteorological Journal*, 40, 320-323.
50. Janeković, I., Kuzmić, M., Bobanović, J., 2003. The Adriatic Sea M2 and K1 tides by 3D model and data assimilation, *Estuarine, Coastal and Shelf Science*, 57, 873-885.
51. Legović, T., Janeković, I., Viličić, D., Petricioli, D., Smoljan, Z., 2003. Effects of Freshwater Release to a Marine Bay, *Journal of Environmental Science and Health, Part A - Toxic/Hazardous Substances and Environmental Engineering*, A38 - 8, 1411-1420.

Refereed conference papers:

1. Pattiaratchi, C., Hetzel, Y., & Janeković, I. 2020. Predicting extreme water levels around Australia. 1-1. Abstract from Virtual International Conference on Coastal Engineering 2020, <https://doi.org/10.9753/icce.v36v.currents.7>
2. Hetzel, Y., Janeković, I., & Pattiaratchi, C. 2020. Benefits and limitations of a coupled wave–surge model for Australian extremes. 1-1. Abstract from Virtual International Conference on Coastal Engineering 2020, <https://doi.org/10.9753/icce.v36v.waves.49>.
3. Hetzel Y., Janekovic I., Pattiaratchi, CB., Wijeratne, EMS., 2017. Assessing the ability of storm surge models to simulate coastal trapped waves around Australia, Proceedings of Coasts and Ports 2017, Engineers Australia, 21-23 July.
4. Hetzel Y., Janekovic I., Pattiaratchi, CB., Wijeratne, EMS., 2015. Storm surge risk from transitioning tropical cyclones in Australia, Proceedings of Coasts and Ports 2015, Engineers Australia and IPENZ, Auckland, 15–18 September.
5. Janekovic I., Hetzel Y., Pattiaratchi, CB., Wijeratne, EMS., Roland, A., 2015. Unstructured high resolution 2-way coupled storm surge – wave model for Australia, Proceedings of Coasts and Ports 2015, Engineers Australia and IPENZ, Auckland, 15–18 September.
6. Ciglencečki, I., Bura-Nakić, E., Marguš, M., Čanković, M., Carić, M., Viličić, D., Ljubešić, Z., Kršinić, F., Batistić, M., Janeković, I., Plavčić, F., 2014. Rogoznica Lake (Croatia), a unique anoxic seawater system on the Adriatic coast under the anthropogenic pressures, Geophysical Research Abstracts, 16, 7925.
7. Beg-Paklar, G., Janeković, I., Dutour-Sikirić, M., Vilibić, I., Dadić, V., Grbec, B., 2010. Circulation variability in the Adriatic Sea and in small domains along the eastern Adriatic coast during 2007 and 2008, Rapport du 39 Congres de la CIESM / Briand, Frederic (ur.). Monaco, CIESM, 2010.
8. Orlić, M., Belušić, D., Janeković, I., Pasarić, M., 2010. Inverted barometer overshoot and great Adriatic surge of 21 June 1978, Rapport du 39 Congres de la CIESM / Briand, Frederic (ur.). Monaco, CIESM, 2010, 151-151.
9. Kuzmić, M., Tomažić, I., Janeković, I., Ivančan-Picek, B., 2010. ASAR vs. SeaWinds vs. WRF: A three-way look at a train of Adriatic bora event, ESA Special Publications SP-679, 2010, 1-6.
10. Janeković, I., Sikiric-Dutour, M., 2007. Improving tidal open boundary conditions for the Adriatic Sea numerical model, Geophysical Research Abstracts, Vol. 9, 03217.
11. Book, J., Martin, P., Janekovic, I., Kuzmic, M., 2007. Frictional bottom boundary layers for tides: observations, theory, and modeling from the northern Adriatic, Geophysical Research Abstracts, Vol. 9, 10678.
12. Janeković, I., Kuzmic, M., 2007. The Adriatic Sea tidal energy budget: energy fluxes and dissipation sinks, Geophysical Research Abstracts, Vol. 9, 04213.
13. Supić, N., Janeković, I., Precali, R., Orlić, M., 2007. Trends in geostrophic currents in the vicinity of Istrian coast (Northern Adriatic), Rapport du 38 Congres de la CIESM / Briand, Frederic (ur.). Monaco: CIESM, 2007, 203-203.
14. Kuzmić, M., Janeković, I., Ivatek-Šahdan, S., Ivančanin-Picek, Tomažić, I., 2005. The tip of Istria region response to bura wind: Observations and modelling, European Geophysical Union, Vienna.
15. Janeković, I., Kuzmić, M., 2004. Tidal dynamics of the Adriatic Sea using high resolution 3D finite element model and in situ observations, Rapp. Comm. int. Mer Médit., 37, 108 -108 p.

Contributions to meetings and congresses:

1. Janeković, I., 2020. Predicting and validating ocean response to severe tropical cyclones - a test bed for operational ocean system at North West Shelf of Western Australia, AMOS, 2020, Fremantle, WA.
2. Janeković, I., 2018. The importance of Ocean – Atmosphere – Wave interactions for tropical cyclones – example of cyclone Olwyn at the North Shelf region of Western Australia, Australian Coastal and Oceans Modelling and Observations Workshop (ACOMO) 2018, Canberra, Shine Dome, Australian Academy of Science.
3. Hetzel Y., Janeković I., Pattiaratchi, CB., Wijeratne, EMS., 2017. Assessing the ability of storm surge models to simulate coastal trapped waves around Australia, Proceedings of Coasts and Ports 2017, Engineers Australia, 21-23 July.
4. Janeković, I., 2016. 2-way coupled wave and ocean model for Australia using 3D unstructured high resolution grid, AMOS/ARCCSS National Conference, Melbourne, 2016.
5. Janeković, I., 2016. Real-time/hindcast modelling system for Central Western Australia, ROMS User Workshop, Hobarth, Australia.
6. Janeković, I., 2016. Predicting the ocean and continental shelf dynamics off Southeastern and central Western Australia using advanced ROMS capabilities; Resolving wave effects on storm surges with an unstructured high resolution 2-way coupled surge-wave model for Australia at Australian Coastal and Oceans Modelling and Observations Workshop (ACOMO), Canberra, 2016.
7. Janekovic, I., 2016. Real-time/hindcast modelling system for Central Western Australia, ROMS User Workshop, Hobarth, Australia.
8. Janeković I., Hetzel Y., Pattiaratchi, CB., 2015. Improved modelling of extreme storm surges and waves along the Australian coast. In M Rumsewicz (ed.), Research Proceedings from the Bushfire and Natural Hazards CRC and AFAC Conference, Bushfire and Natural Hazards Cooperative Research Centre, Adelaide, 1–3 September, pp. 225–230.

9. Hetzel Y., Janeković I., Pattiaratchi, CB., Wijeratne, EMS., 2015. Storm surge risk from transitioning tropical cyclones in Australia, Proceedings of Coasts and Ports 2015, Engineers Australia and IPENZ, Auckland, 15–18 September.
10. Janeković I., Hetzel Y., Pattiaratchi, CB., Wijeratne, EMS., Roland, A., 2015. Unstructured high resolution 2- way coupled storm surge – wave model for Australia, Proceedings of Coasts and Ports 2015, Engineers Australia and IPENZ, Auckland, 15–18 September.
9. Ciglenečki, I., Bura-Nakić, E., Marguš, M., Čanković, M., Carić, M., Viličić, D., Ljubešić, Z., Kršinić, F., Batistić, M., Janeković, I., Plavčić, F., 2014. Rogoznica Lake (Croatia), a unique anoxic seawater system on the Adriatic coast under the anthropogenic pressures, EGU, Vienna, Austria, EU.
10. Janeković, I., 2014. “Estimation of ocean dynamics in coastal regions using advanced ROMS capabilities”, ROMS User Workshop, Rovinj, Croatia.
11. Janeković, I., 2013. “Advanced Modeling & Observation of the Dynamic in the Adriatic Sea”, EMODNET physics, Split, Croatia, 2013.
12. Janeković, I., 2010. “Data Assimilation in a Shallow, Island Coastal Environment”, 2010 ROMS/TOMS User Workshop, Hawai'i Imin International Conference Center, University of Hawai'i at Manoa, Honolulu, Hawai'i.
13. Janeković, I., Dutour Sikirić, M., 2010. “Smoothing bathymetry”, 2010 ROMS/TOMS User Workshop, Hawai'i Imin International conferenc Center, University of Hawai'i at Manoa, Honolulu, Hawai'i.
14. Orlić, M., Belušić, D., Janeković, I., Pasarić, M., 2010. Why the inverted barometer effect may be surpassed by two orders of magnitude in the Middle Adriatic archipelago?, 2010 Ocean Sciences Meeting: From Observation to Prediction in the 21st Century.
15. Orlić, M., Belušić, D., Janeković, I., Pasarić, M., 2010. How coastal surges may be generated by mesoscale atmospheric disturbances that in turn are related to propagating convective systems, 12th Plinius Conference on Mediterranean Storms.
16. Beg-Paklar, G., Janeković, I., Dutour-Sikirić, M., Vilibić, I., Dadić, V., Grbec, B., 2010. Circulation variability in the Adriatic Sea and in small domains along the eastern Adriatic coast during 2007 and 2008, Rapport du 39 Congres de la CIESM / Briand, Frederick (ur.). Monaco, CIESM, 2010.
17. Orlić, M., Belušić, D., Janeković, I., Pasarić, M., 2010. Inverted barometer overshoot and great Adriatic surge of 21 June 1978, Rapport du 39 Congres de la CIESM / Briand, Frederic (ur.). Monaco, CIESM, 2010, 151-151.
18. Kuzmić, M., Tomažić, I., Janeković, I., Ivančan-Picek, B., 2010. ASAR vs. SeaWinds vs. WRF: A three-way look at a train of Adriatic bora event, ESA Special Publications SP-679, 2010, 1-6.
19. Dutour-Sikirić, M., Janeković, I., Kuzmić, M., 2008. “Bathymetry smoothing in ROMS: A new approach”, 2008 ROMS/TOMS european workshop Maison Jean Kuntzmann, Grenoble, France, 06-08.10.2008.
20. Janeković, I., Sikiric-Dutour, M. 2008. Improving tidal open boundary conditions for the Adriatic Sea ROMS numerical model, Gordon Research Conference - Coastal Ocean Modeling, 17-26.06.2008., US.
21. Janeković, I., Sikiric-Dutour, M., 2007. Improving tidal open boundary conditions for the Adriatic Sea numerical model, Geophysical Research Abstracts, Vol. 9, 03217.
22. Book, J., Martin, P., Janekovic, I., Kuzmic, M., 2007. Frictional bottom boundary layers for tides: observations, theory, and modeling from the northern Adriatic, Geophysical Research Abstracts, Vol. 9, 10678.
23. Janeković, I., Kuzmic, M., 2007. The Adriatic Sea tidal energy budget: energy fluxes and dissipation sinks, Geophysical Research Abstracts, Vol. 9, 04213.
24. Supić, N., Janeković, I., Precali, R., Orlić, M., 2007. Trends in geostrophic currents in the vicinity of Istrian coast (Northern Adriatic), Rapport du 38 Congres de la CIESM / Briand, Frederic (ur.). Monaco: CIESM, 2007, 203-203.
25. Signell, R., Sherwood, C., Harris, C., Bever, A., Carniel, S., Chiggiato, J., Janeković, I., 2005. „New Features of ROMS 2.2+ Applied in the Adriatic Sea“, 2005 ROMS/TOMS Workshop: Adjoint Modeling and Applications, Scripps Institute of Oceanography, La Jolla, CA, US.
26. Janeković, I., Tudor, M., 2005. The Adriatic Sea wave response to severe bura wind, The 28th International Conference on Alpine Meteorolgy (ICAM), Zadar, Croatia.
27. Kuzmić, M., Janeković, I., Ivančanin-Picek, B., Trošić, T., Tomažić, I., 2005. Severe north-eastern Adriatic bura events and circulation in greater Kvarner Region, The 28th International Conference on Alpine Meteorolgy (ICAM), Zadar, Croatia.
28. Kuzmić, M., Janeković, I., Ivatek-Šahdan, S., Ivančanin-Picek, Tomažić, I., 2005. The tip of Istria region response to bura wind: Observations and modelling, European Geophysical Union, Vienna.
29. Janeković, I., Kuzmić, M., Book J., Perkins H., 2004. „A tidal model of the Adriatic Sea: ACE/WISE contribution to its current response validation“, ROMS Venice Adriatic Workshop.
30. Janeković, I., Kuzmić, M., 2004. „Tidal dynamics of the Adriatic Sea using high resolution 3D finite element model and in situ observations“, Rapp. Comm. int. Mer Médit., 37, 108 -108 p.
31. Janeković, I., Antonić, O., Križan, J., Bukovec, D., Bakran-Petricioli, T., 2004. „Modelling basic physical parameters in the Adriatic Sea as the basis for marine benthic habitats mapping“, Fourth European Conference on Ecological Modelling, Bled, Slovenia.
32. Bakran-Petricioli, T., Antonić, O., Bukovec, D., Petricioli, D., Janeković, I., Križan, J., Kušan, V., Dujmović, S., 2004. “Modelling spatial distribution of Croatian marine benthic habitats”, Fourth European Conference on Ecological Modelling, Bled, Slovenia.

33. Kuzmić, M., Janeković, I., Tomažić, I., 2003. „West Istria Experiment (WISE): A companion deployment to ACE
“, Rovinj Oceanographic Workshop.

Six of the most significant publications with impact factor (IF) of the journal:

1. **Janekovic, I.**, Mihanović, H., Vilibić, I., Grčić, B., Ivatek-Šahdan, S., Tudor, M., Đakovac, T., 2020. Using multi-platform 4D-Var data assimilation to improve modelling of Adriatic Sea dynamics. *Ocean Modelling*, 146, ISSN 1463-5003, 101538, doi:10.1016/j.ocemod.2019.101538, 5-year IF 3.5
2. **Janeković, I.**, Mihanović, H., Vilibić, I., Tudor, M. 2015. Extreme cooling and dense water formation estimates in open and coastal regions of the Adriatic Sea during the winter of 2012. *Journal of Geophysical Research*, 119, 5, 3200-3218, doi:10.1002/2014JC009865. IF=3.24.
3. Vilibić, I., Šepić, J., Mihanović, H., Kalinić, H., Cosoli, S., **Janeković, I.**, Žagar, N., Jesenko, B., Tudor, M., Dadić, V., Ivanković, D. 2016. Self-Organizing Maps-based ocean currents forecasting system. *Scientific Reports*, 6, 22924; doi: 10.1038/srep22924. IF=4.259.
4. Vilibić, I., Mihanović, H., **Janeković, I.**, Šepić, J. 2016. Modelling the formation of dense water in the northern Adriatic: Sensitivity studies. *Ocean Modelling*, 101, 17-29, doi: 10.1016/j.ocemod.2016.03.001. 5-year IF 3.5.
5. **Janeković, I.**, Powell, B. S., Matthews, D., McManus, M. A., Sevadjian, J. 2013. 4D-Var Data Assimilation in a Nested, Coastal Ocean Model: A Hawaiian Case Study. *Journal of Geophysical Research*, 118, 1-14, doi:10.1002/jgrc.20389. IF=3.24.
6. Powell, B.S., **Janeković, I.**, Carter, G.S., Merrifield, M.A., 2012. Sensitivity of Internal Tide Generation in Hawaii. *Geophysical Research Letters*, doi:10.1029/2012GL051724. IF=4.34.

These people are familiar with my professional qualifications and character:

1. Prof. Brian Powell powellb@hawaii.edu, Phone: (808) 956-6724, Fax: (808) 956-2352
Department of Oceanography, University of Hawai'i at Manoa, 1000
Pope Road, Marine Sciences Building, Honolulu, HI 96822, USA.
- 2 Prof. John Wilkin wilkin@marine.rutgers.edu, Phone 848-932-3366, Department of Marine and
Coastal Sciences, Rutgers University, 71 Dudley Road, New Brunswick, NJ, 08901,
USA.
- 3 Dr. Rich Signell rsignell@usgs.gov, Phone: (508) 457-2229, Fax: (508) 457-2310
U.S. Geological Survey, 384 Woods Hole Road, Woods Hole,
MA 02543-1598, USA.
- 4 Prof. Charitha Pattiaratchi chari.pattiaratchi@uwa.edu.au, Phone: +61 (08) 6488 3179, School of Civil,
Environmental and Mining Engineering, M470, The University of Western
Australia, Crawley, WA 6009, Australia.
5. Prof. Alexander V. Babanin| a.babanin@unimelb.edu.au, Phone :+61 (03) 8344 1538, Ocean Engineering,
Department of Infrastructure Engineering | Melbourne School of Engineering. Rm
C409, Level 4, Building 174, The University of Melbourne, Victoria 3010 Australia.
6. Dr. Jan Flynn jan.flynn@woodside.com.au, Phone: +61 (08) 9348 4452, Chief Metocean
Engineer, Woodside Energy Ltd. Woodside Plaza, 240 St Georges Terrace, Perth
WA 6000, Australia
7. Dr. Jason McConochie J.McConochie@shell.com, Phone:+61 (0) 473 533 180, Lead Metocean Engineer,
Shell Australia Pty Ltd, Shell House, 562 Wellington St, Perth WA 6000. Mail:
GPO Box A47 CDC, Perth WA 6837.