

Lista de lucrări

1. Lista celor mai relevante articole pentru realizările profesionale proprii (maximum 10 lucrări)

1. Mandru, A., Rusu, L., Bekhit, A., **Pacuraru, F.** (2024). *Numerical study of a model and full-scale container ship sailing in regular head waves*. **Inventions**, 9(1), 22. DOI: 10.3390/inventions9010022. [Web of Science; Autor Correspondent]
2. Chiroasca, A.-M., Medina, A., **Pacuraru, F.**, Saettone, S., Rusu, L., Pacuraru, S. (2023). *Experimental and numerical investigation of the added resistance in regular head waves for the DTC hull*. **Journal of Marine Science and Engineering**, 11, 852. DOI: 10.3390/jmse11040852. [Web of Science; Autor Correspondent]
3. **Pacuraru, F.**, Mandru, A., Bekhit, A. (2022). *CFD study on hydrodynamic performances of a planing hull*. **Journal of Marine Science and Engineering**, 10(10), 1523. DOI: 10.3390/jmse10101523. [Web of Science]
4. **Pacuraru, F.**, Domnisoru, L., Pacuraru, S. (2020). *On the comparative seakeeping analysis of the full-scale KCS by several hydrodynamic approaches*. **Journal of Marine Science and Engineering**, 8(12), 962. DOI: 10.3390/jmse8120962. [Web of Science]
5. Procop, I., **Pacuraru, F.**, Păcuraru, S., Solea, R., Cotoc, G., Caramatescu, A. (2022). *Semi-autonomous system for lakes and rivers depollution*. In **Proceedings of the 26th International Conference on System Theory, Control and Computing (ICSTCC)**, Sinaia, Romania, 188–194. DOI: 10.1109/ICSTCC55426.2022.9931869. [Web of Science Proceedings]
6. Hydar, V., Boote, D., Vergassola, G., **Păcuraru, F.** (2022). *Seakeeping analysis of a GRP fast patrol vessel*. In **Proceedings of the ASME 2022 41st International Conference on Ocean, Offshore and Arctic Engineering (OMAE 2022)**, Vol. 5B: Ocean Engineering, V05BT12A014. ASME. DOI: 10.1115/OMAE2022-81100. [Web of Science][Web of Science]
7. **Pacuraru, F.**, Domnisoru, L. (2017). *Numerical investigation of shallow water effect on a barge ship resistance*. **IOP Conference Series: Materials Science and Engineering**, 227, 012088. DOI: 10.1088/1757-899X/227/1/012088. [Web of Science Proceedings]
8. Bernat, P., Latinopoulos, C., **Pacuraru, F. D.**, Pacuraru, S. (2026). *Digital twin-enabled energy simulation for automated zero-emission vessels in constrained inland waterways*. **Transport Research Arena (TRA)**, Budapest, Hungary.

2. Teza de doctorat

Titlul tezei: Contribuții privind modelarea numerică a rezistenței la înaintare a navei prin metoda elementului de frontieră (OM 3181/06.02.2015)

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Școala doctorală de Inginerie mecanică

3. Cărți și capitole în cărți

1. Păcuraru, F. (2026). Cercetări privind îmbunătățirea performanțelor hidrodinamice ale navei. Editura Fundației Universitare „Dunărea de Jos”, Galați. ISBN 978-973-627-724-5.
2. Păcuraru, F. (2019). Modelarea numerică a rezistenței la înaintare a navei prin metoda elementului de frontieră. Editura Fundației Universitare „Dunărea de Jos”, Galați. ISBN 978-973-627-621-7.4.

4. Articole/studii in extenso, publicate în reviste din fluxul științific internațional

9. Mandru, A., Rusu, L., Bekhit, A., **Pacuraru, F.** (2024). *Numerical study of a model and full-scale container ship sailing in regular head waves*. **Inventions**, 9(1), 22. DOI: 10.3390/inventions9010022. [Web of Science; Autor Corespondent]
10. Chiroasca, A.-M., Medina, A., **Pacuraru, F.**, Saettone, S., Rusu, L., Pacuraru, S. (2023). *Experimental and numerical investigation of the added resistance in regular head waves for the DTC hull*. **Journal of Marine Science and Engineering**, 11, 852. DOI: 10.3390/jmse11040852. [Web of Science; Autor Corespondent]
11. **Pacuraru, F.**, Mandru, A., Bekhit, A. (2022). *CFD study on hydrodynamic performances of a planing hull*. **Journal of Marine Science and Engineering**, 10(10), 1523. DOI: 10.3390/jmse10101523. [Web of Science]
12. Mandru, A., Rusu, L., **Pacuraru, F.** (2022). *Hydrodynamics performance prediction of full-scale ship*. **International Journal of Modern Manufacturing Technologies**, 14(3), 130. DOI: 10.54684/ijmmt.2022.14.3.130. [Scopus; Autor Corespondent]
13. **Pacuraru, F.**, Domnisoru, L., Pacuraru, S. (2020). *On the comparative seakeeping analysis of the full-scale KCS by several hydrodynamic approaches*. **Journal of Marine Science and Engineering**, 8(12), 962. DOI: 10.3390/jmse8120962. [Web of Science]
14. Obreja, D., Domnișoru, L., **Pacuraru, F.** (2008). *Integrated system for data acquisition and numerical analysis of the ship resistance performance in the towing tank of Galati University*. **Romanian Journal of Physics**, 53(1–2), 133–143. WoS Accession No.: 000255029300019. [Web of Science]

5. Publicații în extenso, apărute în lucrări ale conferințelor internaționale de specialitate

1. Cotoc, G., Rusu, L., **Pacuraru, F.** (2025). *Investigation of ship free oscillation using inertial measuring unit systems in water and air environment*. **International Multidisciplinary Scientific GeoConference: SGEM**, 2(1), 145–152. [Scopus]
2. Mandru, A., Cotoc, G., Rusu, L., **Pacuraru, F.** (2025). *Numerical analysis of hull separation effects on full-scale catamaran hydrodynamics*. In **25th International Multidisciplinary Scientific GeoConference SGEM 2025 Proceedings – Science and Technologies in Geology, Exploration and Sustainable Mining**, 129–138. STEF92 Technology. DOI: 10.5593/sgem2025/1.1/s02.17. [Scopus]
3. Mandru, A., Rusu, L., **Pacuraru, F.** (2024). *Roughness effect on a full-scale general cargo vessel total resistance and effective power*. **International Multidisciplinary Scientific**

- GeoConference: SGEM, 2024(4.1)**, 189–196. DOI: 10.5593/sgem2024/4.1/s17.25. [Scopus]
4. Mandru, A., Rusu, L., **Pacuraru, F.** (2023). *Open water simulation of the KCS propeller*. In **Proceedings of the 21st International Conference of Numerical Analysis and Applied Mathematics (ICNAAM)**, Crete, Greece. DOI: 10.1063/5.0286491. [Scopus]
 5. Procop, I., **Pacuraru, F.**, Păcuraru, S., Solea, R., Cotoc, G., Caramatescu, A. (2022). *Semi-autonomous system for lakes and rivers depollution*. In **Proceedings of the 26th International Conference on System Theory, Control and Computing (ICSTCC)**, Sinaia, Romania, 188–194. DOI: 10.1109/ICSTCC55426.2022.9931869. [Web of Science Proceedings]
 6. Hydar, V., Boote, D., Vergassola, G., **Păcuraru, F.** (2022). *Seakeeping analysis of a GRP fast patrol vessel*. In **Proceedings of the ASME 2022 41st International Conference on Ocean, Offshore and Arctic Engineering (OMAE 2022)**, Vol. 5B: Ocean Engineering, V05BT12A014. ASME. DOI: 10.1115/OMAE2022-81100. [Scopus]
 7. **Pacuraru, F.**, Presura, A., Pacuraru, S. (2020). *Experimental towing tank tests on high-speed displacement ship*. **IOP Conference Series: Materials Science and Engineering**, **916**(1), 012080. DOI: 10.1088/1757-899X/916/1/012080. [Web of Science Proceedings]
 8. Mandru, A., **Pacuraru, F.** (2020). *Experimental study on catamaran hydrodynamics*. **IOP Conference Series: Materials Science and Engineering**, **916**(1), 012060. DOI: 10.1088/1757-899X/916/1/012060. [Web of Science Proceedings; Autor Corespondent]
 9. Pacuraru, S., **Pacuraru, F.**, Bekhit, A. (2019). *Numerical analysis of ship motions for an offshore vessel*. In **Proceedings of the 17th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2019)**, AIP Conference Proceedings. DOI: 10.1063/5.0027329. [Web of Science Proceedings; Autor Corespondent]
 10. Bekhit, A., **Pacuraru, F.**, Pacuraru, S. (2019). *Hull-propeller-rudder interaction of the JBC ship model*. In **Proceedings of the 17th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2019)**, AIP Conference Proceedings. DOI: 10.1063/5.0027325. [Web of Science Proceedings; Autor Corespondent]
 11. **Pacuraru, F.** (2019). *Validation of potential flow method for ship resistance prediction*. **IOP Conference Series: Materials Science and Engineering**, **591**(1), 012113. DOI: 10.1088/1757-899X/591/1/012113. [Web of Science Proceedings]
 12. **Pacuraru, F.**, Mandru, A. (2019). *Improving the hydrodynamics performance of the catamaran passenger*. **IOP Conference Series: Materials Science and Engineering**, **591**(1), 012112. DOI: 10.1088/1757-899X/591/1/012112. [Web of Science Proceedings]
 13. Pacuraru, S., **Pacuraru, F.**, Presura, A. (2019). *Numerical investigation on fast displacement ship hydrodynamics*. **IOP Conference Series: Materials Science and Engineering**, **591**(1), 012111. DOI: 10.1088/1757-899X/591/1/012111. [Web of Science Proceedings; Autor Corespondent]
 14. **Pacuraru, F.**, Presura, A., Bekhit, A., Pacuraru, S. (2019). *Full-scale self-propulsion simulation for an inland catamaran ferry*. In **19th SGEM International**

- Multidisciplinary Scientific GeoConference EXPO Proceedings**, Albena. DOI: 10.5593/sgem2019/4.1/S17.081. [Scopus]
15. Pacuraru, S., Domnisoru, L., **Pacuraru, F.** (2018). *Numerical study on motions of a containership on head waves*. **IOP Conference Series: Materials Science and Engineering**, **400**, 082016. DOI: 10.1088/1757-899X/400/8/082016. [Web of Science Proceedings; Autor Corespondent]
 16. Burlacu, E., **Pacuraru, F.**, Domnisoru, L. (2018). *On a river-coastal tug operation safety assessment in irregular waves*. In **Proceedings of the Fourth International Conference on Traffic and Transport Engineering**, Belgrade, 187–194. ISBN 978-86-916153-4-5. [Web of Science Proceedings]
 17. **Pacuraru, F.**, Domnisoru, L. (2017). *Numerical investigation of shallow water effect on a barge ship resistance*. **IOP Conference Series: Materials Science and Engineering**, **227**, 012088. DOI: 10.1088/1757-899X/227/1/012088. [Web of Science Proceedings]
 18. Caramatescu, A., Mocanu, C. I., **Pacuraru, F.** (2017). *Estimation of planing forces in numerical and full-scale experiment*. In **Proceedings of IMAM 2017 – International Maritime Association of the Mediterranean**, Portugal. [Scopus]
 19. Caramatescu, A., **Pacuraru, F.**, Cristea, C. (2016). *Simulation of a cargo planing boat with inverted keel*. In **Proceedings of the International Conference on Traffic and Transport Engineering**, Belgrade, Serbia. WoS Accession No.: 000391016300037. [Web of Science Proceedings]
 20. **Pacuraru, F.**, Lungu, A., Marcu, O. (2011). *Self-propulsion simulation of a tanker hull*. **AIP Conference Proceedings**, **1389**, 191–194. DOI: 10.1063/1.3636699. [Web of Science Proceedings]
 21. **Pacuraru, F.**, Lungu, A. (2010). *Numerical investigation on ship podded propulsion*. **AIP Conference Proceedings**, **1281**, 111–114. DOI: 10.1063/1.3497844. [Web of Science Proceedings]
 22. Lungu, A., **Pacuraru, F.**, Ungureanu, C. (2010). *Numerical modeling of the wave breaking*. **AIP Conference Proceedings**, **1281**, 107–110. [Web of Science Proceedings]
 23. Lungu, A., **Pacuraru, F.** (2010). *Free-surface flow around an appended hull*. In **Proceedings of the 25th IAHR Symposium on Hydraulic Machinery and Systems**, 12, 012079. DOI: 10.1088/1755-1315/12/1/012079. [Web of Science Proceedings]
 24. **Pacuraru, F.**, Lungu, A., Ungureanu, C., Marcu, O. (2010). *Numerical simulation of the flow around steerable propulsion unit*. In **Proceedings of the 25th IAHR Symposium on Hydraulic Machinery and Systems**, 12, 012032. DOI: 10.1088/1755-1315/12/1/012032. [Web of Science Proceedings]
 25. Lungu, A., **Pacuraru, F.** (2009). *Numerical study of the hull-propeller-rudder interaction*. **AIP Conference Proceedings**, **1169**, 693–696. WoS Accession No.: 000273023600168. [Web of Science Proceedings]

26. **Pacuraru, F.**, Lungu, A., Maria, V. (2009). *3D viscous free-surface flow around a combatant ship hull*. **AIP Conference Proceedings**, **1168**, 697–700. WoS Accession No.: 000273023600169. [Web of Science Proceedings]

6. Alte lucrări și contribuții științifice

A. Articole în reviste de specialitate

1. Cotoc, G., Rusu, L., Mandru, A., **Pacuraru, F.** (2023). *Assessment of motor yacht hydrodynamic performance*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620; e-ISSN 2668-3156.
2. Ditu, C., Mandru, A., **Pacuraru, F.** (2023). *Effect of distance between the hulls variation on the total resistance of a catamaran*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620; e-ISSN 2668-3156.
3. Mitrofan, A., Mandru, A., **Pacuraru, F.** (2023). *Study on the position of the bow spray rail of a patrol vessel*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620; e-ISSN 2668-3156.
4. Cotoc, G., Rusu, L., **Pacuraru, F.**, Poso, A. (2022). *Ship design optimization framework*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620; e-ISSN 2668-3156.
5. Bujor, A., Mandru, A., **Pacuraru, F.** (2022). *Numerical simulation of the flow around a kayak hull*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620; e-ISSN 2668-3156.
6. Mandru, A., Rusu, L., **Pacuraru, F.** (2021). *Propulsion simulation on fully appended ship model*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**. ISSN 1221-4620.
7. Mochammad, R., **Pacuraru, F.** *Automatic procedure of side ship launching calculation*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 133–138. ISSN 1221-4620.
8. **Pacuraru, F.** *Panelization study for free surface potential flow computation*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 71–80. ISSN 1221-4620.
9. Domnisoru, L., **Pacuraru, F.**, Modiga, A. (2016). *On the software DRSWIN designed for barges draught survey processing*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 11–18. ISSN 1221-4620.
10. **Pacuraru, F.**, Domnisoru, L., Popescu, G., Burlacu, E. (2016). *On the hull models accuracy for barge type B1740t Europe B2 used for the processing of the draught survey*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 19–24. ISSN 1221-4620.
11. Cardona, J. S., **Pacuraru, F.** (2016). *Numerical simulation of oblique towing test*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 137–142. ISSN 1221-4620.

12. Cristea, C., **Pacuraru, F.**, Domnisoru, L. (2016). *CFD study on parameterized barge hull*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 165–171. ISSN 1221-4620.
13. **Pacuraru, F.**, Presura, A., Iorga, S. (2015). *Propulsive performance improvement of an inland pusher*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 163–168. ISSN 1221-4620.
14. Pilakkat, B., **Pacuraru, F.** (2015). *A practical system for CFD-based hull optimisation*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 153–162. ISSN 1221-4620.
15. Chahbi, M. R., **Pacuraru, F.**, Lungu, A., Obreja, C. D. (2013). *Numerical computation of hydrodynamics forces and moments on KVLCC2 hull*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 195–200. ISSN 1221-4620.
16. **Pacuraru, F.**, Svetlozar, N. (2012). *Free surface flow simulation around combatant ship*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 83–90. ISSN 1221-4620.
17. **Pacuraru, F.** (2011). *Towing tank tests for the DTMB 5415 combatant hull*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 11–17. ISSN 1221-4620.
18. **Pacuraru, F.**, Lungu, A. (2009). *Numerical flow simulation around an appended ship hull*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 29–34. ISSN 1221-4620.
19. Lungu, A., **Pacuraru, F.** (2008). *3D free-surface flow study around a dhow appended hull*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, **53(67)**, Special Issue, 9–16. ISSN 1224-6077.
20. **Pacuraru, F.**, Lungu, A., Tocu, A. M. (2008). *Hybrid BEM-Rankine source approach for the numerical modelling of the flow around a liner ship hull*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, **53(67)**, Special Issue, 17–22. ISSN 1224-6077.
21. Lungu, A., Tocu, A. M., **Pacuraru, F.** (2008). *Numerical investigation of the wake structure in a free-surface viscous flow around a high block coefficient tanker*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, **53(67)**, Special Issue, 31–36. ISSN 1224-6077.
22. **Pacuraru, F.**, Obreja, D. (2007). *Numerical and experimental investigation on a tractor tug resistance performance*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, **52(66)**, Special Issue, 103–108. ISSN 1224-6077.
23. Obreja, D., **Pacuraru, F.**, Popescu, G. (2006). *Investigation of the appendages influence on a tractor tug resistance performance*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, **51(65)**, Special Issue, 129–134. ISSN 1224-6077.

24. Obreja, D., Popescu, G., Ionas, O., **Pacuraru, F.** (2005). *Experimental techniques for vortices investigation around the ship model*. **Scientific Bulletin of the "Politehnica" University of Timisoara – Transactions on Mechanics**, 50(64), Special Issue, 127–130. ISSN 1224-6077.
25. **Pacuraru, F.**, Popoiu, S. (2004). *Ship skeg hydrodynamics*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 69–72. ISSN 1221-4620.
26. Matulea, I. C., **Pacuraru, F.**, Anastasiu, N. (2003). *A single point mooring vessel*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 85–89. ISSN 1221-4620.
27. **Pacuraru, F.**, Popoiu, S. (2003). *Local strength analyses with FEM for a dredger*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 85–89. ISSN 1221-4620.
28. Matulea, I. C., Popoiu, S., **Pacuraru, F.** (2003). *Numerical simulation of a towed underwater motion under external excitations*. **Annals of "Dunarea de Jos" University of Galati, Fascicle XI – Shipbuilding**, 41–48. ISSN 1221-4620.

B. Articole alte proceedings-uri ale unor simpozioane/conferințe științifice internaționale și naționale

1. Bernat, P., Latinopoulos, C., **Pacuraru, F. D.**, Pacuraru, S. (2026). *Digital twin-enabled energy simulation for automated zero-emission vessels in constrained inland waterways*. **Transport Research Arena (TRA)**, Budapest, Hungary.
2. Cotoc, G., Rusu, L., **Pacuraru, F.** (2023). *Numerical investigations on ship stabilizing fin shape*. In **Proceedings of the 21st International Conference of Numerical Analysis and Applied Mathematics (ICNAAM)**, Crete, Greece, 11–17 September 2023.
3. Mandru, A., **Pacuraru, F.** (2021). *The effect of appendages on ship resistance*. **IOP Conference Series: Materials Science and Engineering**, 1182(1), 012041. DOI: 10.1088/1757-899X/1182/1/012041.
4. Chiroșcă, A.-M., Rusu, L., **Pacuraru, F.** (2021). *Study on the behavior of benchmark container ships in regular waves*. **IOP Conference Series: Materials Science and Engineering**, 1182(1), 012013. DOI: 10.1088/1757-899X/1182/1/012013.
5. **Pacuraru, F.**, Lungu, A., Marcu, O. (2009). *Numerical flow simulation around an appended ship hull*. In **Proceedings of the Numerical Towing Tank Symposium (NUTTS 2009)**, Cortona, Italy.
6. Lungu, A., **Pacuraru, F.** (2008). *Wave resistance minimization for ships running under restricted water conditions*. In **Proceedings of the Numerical Towing Tank Symposium (NUTTS 2008)**, Brest, France, 47–52.
7. **Pacuraru, F.**, Obreja, D. (2007). *Hydrodynamic introspection of appendages: Influence on ship resistance*. In **Proceedings of the 5th International Congress on Maritime Technological Innovations and Research**, Barcelona, Spain, 77–85.

8. Obreja, D., **Pacuraru, F.**, Popescu, G. (2006). *Numerical and experimental investigation of a bulk carrier ship resistance*. In **Proceedings of the 8th International Conference on Marine Science and Technology – Black Sea 2006**, Varna, Bulgaria, Vol. 1, 333–338.
9. **Pacuraru, F.**, Obreja, D., Popescu, G. (2006). *A Rankine source method calculation of the wave resistance for a Panamax bulk-carrier hull*. In **Proceedings of the Conference on Modelling Fluid Flow (CMFF 2006)**, Budapest, Hungary, 782–789.
10. Obreja, D., Popescu, G., Domnișoru, L., Ionas, O., **Pacuraru, F.** (2005). *Experimental investigation of the bulbous bow form influence on a Panamax bulk carrier resistance*. In **Proceedings of the MEEMI – Shipbuilding Symposium**, Varna, Bulgaria.
11. Obreja, D., Popescu, G., **Pacuraru, F.** (2005). *The towing tank of "Dunărea de Jos" University of Galați: Present and future plans for new tests*. **NAV MAR EDU 2005**, Constanța, Romania.

Data,
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Semnatura
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