

CURRICULUM VITAE

NAME: ALINA BARBULESCU

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EDUCATION

Nov. 2020 – Al. I. Cuza University of Iasi -	Habilitation in Cybernetics and Economics Statistics
Jul. 2014 - Technical University of Civil Engineering, Bucharest	Habilitation in Civil Engineering
Oct. 2014 - Technical University of Civil Engineering, Bucharest	Ph.D. Civil Engineering (Magna cum Laude)
Jan 2003 - Academy of Economic Studies, Bucharest	Ph.D. Cybernetics and Economic Statistics
“Al. I. Cuza” University, Iasi	Ph.D. Mathematics
P. Andrei University, Iasi, Faculty of Law	Bachelor Law
Bucharest University, Faculty of Mathematics	M.Sc. Mathematics
Craiova University, Faculty of Nature Sciences	Bachelor Mathematics

SCIENTIFIC EMPLOYMENT AND ACADEMIC RESPONSIBILITY

Research Institution or University	From - to	Academic responsibilities
Transilvania University of Brasov	22 Feb 2021-present	Professor
Transilvania University of Brasov	Oct 2024- present	Ph.D. supervisor
Technical University of Civil Engineering, Bucharest, Romania	Feb 2015 – March 2024	Ph.D. supervisor
Ovidius University of Constanta, Romania	Feb 2003 - July 2015, July 2018 – Feb.2021	Associate Professor
Higher Colleges of Technology, Sharjah, UAE	Aug 2015 - July 2018	Associate Professor
Abu Dhabi University, UAE	Feb 2011 - June 2011	Visiting professor
Ovidius University of Constanta, Romania	Sept 2009 – July 2015	Director of the Master program of Mathematical Modeling in Finance and Economic Analysis
Ovidius University of Constanta, Romania	Feb. 2013 – May 2014	Head of Department Mathematics and Computer Science
Ovidius University of Constanta, Romania	1999 - 2003	Lecturer
Valahia University of Targoviste, Romania	1993 - 1999	Lecturer
Valahia University of Targoviste, Romania	1992 – 1993	Assistant Professor
National College Unirea Focsani	1991- 1992	Teacher
General schools 10 and 5, Focsani, Romania	1990 - 1991	Teacher
National College Samuil Vulcan, Beius, Romania	1988 - 1990	Teacher

INTEREST DOMAINS

- Hydro-meteorological modeling and forecasting
- Time series analysis and forecasting, particularly pollutants' dissipation and forecasting
- Probability and Applied Statistics

- Mathematical Modelling
- Mathematical Analysis – Hausdorff measures
- Complex Analysis - p-modules and p-capacity

RESEARCH GRANTS OBTAINED BY NATIONAL/INTERNATIONAL COMPETITION

1. Grant CNCSIS 902/2007, 2008 – *Studies on metallic materials on naval constructions – Modelling the mass loss in different media* – Principal Investigator
2. Grant ID_262/2007 – 2010 - *Mathematical modelling of the precipitations Dobrogea* – Principal Investigator
3. Research contract 2939/10.12.2001, Sub - theme at grant 33/1998, *The study and the modelling of the climatic processes that participate at the dimensioning of an irrigation system in the arid lands* – member
4. Grant CNCSIS 1071/2005 – *Computational algebra and applications in algebra and informatics* – member
5. Grant CNCSIS 1075/2005 – 2006, 2006 – 2007, 2007– 2008 – *Research on the optimization of the technical elements of the irrigation by aspersion – Studies on the water circulation and storage in the soil active layer* - member
6. Grant of Romanian Academy no.106/17.08.2007– 2008, *The comportment of moving ship on progressive regular waves* - member
7. Project No. R 17081 - *Environmental Impacts and Modelling of Dust Storms Pathway in UAE using Field and Remote sensing Techniques*, financed by the The Research Office of Zayed University, United Arab Emirates – member
8. Grant Postdoctoral PN-III-P1-1.1-PD-2019-0424, 2021 and 2022 – *Analiza integrată a susceptibilității la viituri rapide și inundații la nivelul României utilizând algoritmi de învățare automată si statistici bivariante (RO-FLOOD-SUSCEP)* – 246800 lei – Mentor
9. Project: 101123467 – MULTICARE – HORIZON-CL5-2022-D4-02 – member
10. *Integrating GIS, Remote Sensing, and field sample collection for atmospheric pollution and health risk assessment: Case Study for Abu Dhabi* – 2024 – 2026 – financed by the The Research Office of Zayed University, United Arab Emirates – member

RESEARCH GRANTS OBTAINED OUTSIDE ROMANIA

- Germany, Eisenach (financed by Jena University) - September 2005, Fractal Analysis
- Unesco International Center of Theoretical Physics, Trieste, Italy, March –April 2004, Modeling in Life and Material Sciences and in Technology
- Unesco International Center of Theoretical Physics, Trieste, Italy – November 2004, Practical applications of fractals
- Unesco International Center of Theoretical Physics, Trieste, Italia - September - October 2007 – Advanced school and conference on statistics and applied probability in life sciences
- Graz, Austria (Financed by Marie Curie grant) – July 2008
- Rethymno, Crete, Greece, 5th Advanced Summer School in Economics and Econometrics, August 2010

AWARDS

Executive Agency for Higher Education, Research, Development and Innovation Funding, Ministry of Higher Education, Romania, awards numbers for the members in HORIZON teams:

- PN-IV-P8-8.1-PRE-HE-ECH2023-0180 - Multi-hazard low-carbon resilient technologies and multiscale digital services for a future-proof, sustainable & usercentred built environment – member of research team MULTICARE Horizon

Executive Agency for Higher Education, Research, Development and Innovation Funding, Ministry of Higher Education, Romania, awards numbers for the articles:

- PN-IV-P2-2.3-PRECISI-2023-77445 - C. S. Dumitriu, **A. Bărbulescu**, Artificial intelligence models for the mass loss of copper-based alloys under the cavitation, *Materials*, **15(19)**, 2022, 6695.
- PN-IV-P2-2.3-PRECISI-2023-77625 - **A. Bărbulescu**, C. S. Dumitriu, Modeling the Voltage Produced by Ultrasound in Seawater by Stochastic and Artificial Intelligence Methods, *Sensors*, **22(3)**, 2022, 1089.

- PN-IV-P2-2.3-PRECISI-2023-77994 - **A. Bărbulescu**, L. Barbeș, C. S. Dumitriu, Impact of soil pollution on melliferous plants, *Toxics*, **10**, 2022, 239.
- PN-IV-P2-2.3-PRECISI-2023-78183 – **A. Bărbulescu**, L. Barbeș, C. S. Dumitriu, Assessing the water pollution of Brahmaputra River using water quality indexes, *Toxics*, **9(11)**, 2021, 297.
- PN-IV-P2-2.3- PRECISI-2023- 73335 - A. Crăciun, R. Costache, **A. Bărbulescu**, S. Chandra Pal, I. Costache, C.S. Dumitriu, Modern techniques for flood susceptibility estimation across the Deltaic Region (Danube Delta) from the Black Sea’s Romanian Sector, *Journal of Marine Science and Engineering*, **10**, 2022, 1149.
- PN-III-P1-1.1- PRECISI-2021- 53310 - **A. Bărbulescu**, C. Ș. Dumitriu, On the Connection between the GEP Performances and the Time Series Properties, *Mathematics*, **9**, 2021,1853.
- PN-III-P1-1.1- PRECISI-2021- 53562 - **A. Bărbulescu**, F. Postolache, New approaches for modeling the regional pollution in Europe, *Science of The Total Environment*, **753**, 2021, 141993.
- PN-III-P1-1.1- PRECISI-2021-54063 – **A. Bărbulescu**, L. Barbes, Statistical methods for assessing water quality after treatment on a sequencing batch reactor, *Science of The Total Environment*, **752**, 2021, 141991.
- PN-III-P1-1.1- PRECISI-2021- 54954 - A. Al-Taani, Y. Nazzal, F. Howari, J. Iqbal, N. Bou-Orm, C. M. Xavier, **A. Bărbulescu**, M. Sharma, C.S. Dumitriu, Contamination assessment of heavy metals in agricultural soil, in the Liwa area (UAE), *Toxics*, **9**, 2021, 53.
- PN-III-P1-1.1- PRECISI-2021- 55316 - Y. H. Nazzal, **A. Bărbulescu**, F. Howari, A.A. Al-Taani, J. Iqbal, C. M. Xavier, M. Sharma, C.S. Dumitriu, Assessment of metals concentrations in agricultural soils of Abu Dhabi Emirate using pollution indices and multivariate statistics, *Toxics*, **9**, 2021, 95.
- PN-III-P1-1.1- PRECISI-2021- 56436 - R. Costache, **A. Bărbulescu**, Q. B. Pham, Integrated framework for detecting the areas prone to flooding generated by flash-floods in small river catchments - a useful indicator for water quality, *Water*, **13**, 2021, 758.
- PN-III-P1-1.1- PRECISI-2021 - 56511 - A.-D. Moraru, C. Duhnea, **A. Bărbulescu**, M. Juganaru, D. Juganaru, Residents’ attitude toward tourism - do the benefits outweigh the downsides? The case of Constanta, Romania, *Sustainability*, **13**, 2021, 882.
- PN-III-P1-1.1- PRECISI-2021- 56745 - **A. Bărbulescu**, C. Șerban, M.-L. Indrečan, Improving spatial interpolation quality. IDW versus a genetic algorithm, *Water*, **13**, 2021, 863.
- PN-III-P1-1.1- PRECISI-2021- 54492 – 2020 - **A. Bărbulescu**, L. Barbeș, Statistical Assessment and Modeling of Benzene in Timiș County, România, *International Journal of Environmental Science and Technology*, **19**, 2022, 817-828.
- PN-III-P1-1.1- PRECISI-2021- 57840 - M. Mihăilescu, A. Negrea, M. Ciopec, P. Negrea, N. Duțeanu, I. Grozav, P. Svera, C. Vancea, **A. Bărbulescu**, C-S. Dumitriu, Full factorial design for gold recovery from industrial solutions, *Toxics*, **9**, 2021, 111.
- PN-III-P1-1.1- PRECISI-2021- 60058 – C. Maftai, **A. Bărbulescu**, S. Rugină, C. D. Nastac, I. M. Dumitru, Analysis of the arbovirosis potential occurrence in Dobrogea, Romania, *Water*, **13**, 2021, 374.
- PN – III – P1 – 1.1 – PRECISI –2020 – 42975 – **A. Bărbulescu**, A. Dani, Statistical analysis of the water quality of the major rivers in India, *Romanian Reports in Physics*, **71(4)**, 2019, 716.
- PN – III – P1 – 1.1 – PRECISI –2020 – 43136 – A. Bărbulescu, Y. Nazzal, Statistical analysis of the dust storms in the United Arab Emirates, *Atmospheric Research*, **231**, 2020, 104669.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 43196 – A. Bărbulescu, J. Deguenon, Theoretical observers for infinite-dimensional skew-symmetric systems, *Analele Stiințifice ale Universitatii Ovidius din Constanta*, seria Matematica, **28(1)**, 2020, 135-180.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 43700 – **A. Bărbulescu**, Assessing the groundwater vulnerability: DRASTIC method and its versions. A review, *Water*, **12(5)**, 2020, 1356.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 43718 – D. Simian, F. Stoica, A. Bărbulescu, Automatic Optimized Support Vector Regression for Financial Data Prediction, *Neural Computing & Applications*, **32(7)**, 2020, 2383-2396.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 44006 – **A. Bărbulescu**, L. Barbeș, Assessing the Danube River water quality by statistical methods, *Environmental Earth Sciences*, **79(6)**, 2020, 122.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 44504 – L. Barbeș, **A. Bărbulescu**, G. Stanciu, Statistical analysis of mineral elements content in different melliferous plants from the Dobrogea region, România, *Romanian Reports in Physics*, **72(2)**, 2020, 705.

- PN – III – P1 – 1.1 – PRECISI – 2020 – 44534 – **A. Bărbulescu**, A. Băutu, E. Băutu, Particle Swarm Optimization for the Inverse Distance Weighting Distance method, *Applied Sciences-Basel*, **10(6)**, 2020, 2054.
- PN – III – P1 – 1.1 – PRECISI – 2020 – 52051 – **A. Bărbulescu**, Y. Nazzal, F. Howari, Assessing the groundwater quality in the Liwa area, the United Arab Emirates, *Water*, **12(10)**, 2020, 2816.
- PN – III – P1 – 1.1 – PRECISI – 2019 – 36622 – **A. Bărbulescu**, N. Popescu – Bodorin, History-based long-term predictability of regional monthly fuzzy data, *Stochastic Environmental Research and Risk Assessment*, **33(7)**, 2019, 1435-1451.
- PN – III – P1 – 1.1 – PRECISI – 2019 – 34968 – **A. Bărbulescu**, A. Moraru, C. Duhnea, Ecolabelling in the Romanian Seaside Hotel Industry – marketing considerations, financial constraints, perspectives, *Sustainability*, **1**, 2019, 265.
- PN – III – P1 – 1.1 – PRECISI – 2019 – 34971 – A.-D. Moraru, **A. Bărbulescu**, C. Duhnea, Consumption and hysteresis - the new, the old, and the challenge, *Economic Research - Ekonomska Istraživanja*, **31(1)**, 2019, 1965 – 1980.
- Research award PN – III – P1 – 1.1 – PRECISI – 2018 – 28303 – **A. Bărbulescu**, Do the time series statistical properties influence the goodness of fit of GRNN models? Study on financial series, *Applied Stochastic Models in Business and Industry*, **34(5)**, 2018, 586 – 596.
- Research award PN – III – P1 – 1.1 – PRECISI – 2018 – 25593 – **A. Bărbulescu**, Y. Nazzal, F. Howari, Statistical analysis and estimation of the regional trend of aerosol size over the Arabian Gulf Region during 2002 -2016, *Scientific Reports*, **8:9571**, 2018,
- Research award PN – III – P1 – 1.1 – PRECISI – 2018 – 22202 – **A. Bărbulescu**, L. Barbes, Mathematical modeling of sulfur dioxide concentration in the Western part of Romania, *Journal of Environmental Management*, **204** part 3, 2017, 825 – 830.
- PN – III – P1 – 1.1 – PRECISI – 2018 – 22200 – **A. Bărbulescu**, L. Barbes, Modeling the carbon monoxide dissipation in Timisoara, Romania, *Journal of Environmental Management*, **204** part 3, 2017, 831 – 838.
- PN – III – P1 – 1.1 – PRECISI – 2018 – 24516 – A. Negrea, A. Gabor, C.-M. Davidescu, M. Ciopec, P. Negrea, N. Duteanu, **A. Bărbulescu**, Rare Earth Elements Removal from Water Using Natural Polymer, *Scientific Reports*, **8:316**, 2018
- Research award PN – III – P1 – 1.1 – PRECISI – 2017 – 17867 – **A. Bărbulescu**, A. E. Sterpu, L. Barbes, C.- I. Koncsag, New correlation for the mixing of waste water sludge, *Romanian Journal of Physics*, **62(1-2)**, 2017, art. 801.
- Research award PN – III – P1 – 1.1 – PRECISI – 2016 – 12355 – M. Gilca, **A. Bărbulescu**, Taste of medicinal plants: a potential tool in predicting ethnopharmacological activities?, *Journal of Ethnopharmacology*, **174**, 2015, 464 – 473.
- Research award PN – III – P1 – 1.1 – PRECISI – 2016 – 13218 – **A. Bărbulescu**, J. Deguenon, About the variations of precipitation and temperature evolution in the Romanian Black Sea Littoral, *Romanian Reports in Physics*, **67(2)**, 2015, 625 - 637,
- Research award PN – III – P1 – 1.1 – PRECISI – 2016 – 12772 – C. Maftai, **A. Bărbulescu**, A.A. Cârsteanu, Long-range dependence in the time series of Taița River, *Hydrological Sciences Journal*, **61(9)**, 2016, 1740 - 1747,
- Research award PN – III – P1 – 1.1 – PRECISI – 2016 – 12680 – **A. Bărbulescu**, A new method for estimation the regional precipitation, *Water Resources Management*, **30(1)**, 2016, 33-42, 2016.
- Research award of 2007 – articol cod 60 – Lista Noiembrie 2007 –**A. Bărbulescu**, C. Koncsag, A new model for estimating mass transfer coefficients for the extraction of ethanethiol with alkaline solutions in packed column, *Applied Mathematical Modelling*, **31(11)**, 2007, 2515 - 2523

Higher Colleges of Technology United Arab Emirates, Sharjah Women Campus:

- Excellence in commitment to research & scholarly activities, 31.05.2016
- Recognition of Contribution – Dedication to teaching & contribution to Genral Studies Department, 16.05.2016

Ovidius University of Constanta, Romania

- Prize for Excellence in Research, 2017

MEMBER IN EDITORIAL BOARDS

1. *Atmosphere* (WOS) – member of Topical Advisory Panel
2. *Hydrology* (WOS) - member of Topical Advisory Panel
3. *International Journal of Applied Mathematics and Statistics* (ESCI) <http://www.ceser.in/ceserp/index.php/ijamas> - member of Editorial Board
4. *International Journal of Mathematics and Computation*: <http://www.ceser.in/ceserp/index.php/ijmc> - member of Editorial Board
5. *Analele Universitatii "Ovidius" Constanta - Seria Constructii*: <http://www.univ-ovidius.ro/revista-constructii/> (EBSCO) - member of Editorial Board.

Previously:

1. *Water* (WOS) – member of Topical Advisory Panel
2. *Safety of Tehnogenic Environment, Riga Technical University* https://content.sciendo.com/view/journals/ste/ste-overview.xml?tab_body=editorial (SCOPUS) - member of Editorial Board
3. *Population Dynamics: Analysis, modeling and forecast*, University of Nova Gorica, Slovenia, <http://popdynamf.ung.si/EB.htm>

MEMBER IN SCIENTIFIC SOCIETIES

- SSMR (2006 - 2021)
- SPSR (2007 - 2020)
- IAENG (since 2007)
- IAHS (since 2008)
- EGU – 2008

EDITOR

1. *Water*, special issue: *Climate Change and Hydrological Processes II*, 2025 https://www.mdpi.com/journal/water/special_issues/0H31T1E7FV
2. *Water*, special issue: *Climate Change and Hydrological Processes II*, 2025 https://www.mdpi.com/journal/water/special_issues/170L79L494#info
3. *Toxics*, special issue: *Advances in Water, Air and Soil Pollution, Monitoring, Modeling and Restoration*, https://www.mdpi.com/journal/toxics/special_issues/0I5O0Y56F0
Book: *Advances in Water, Air and Soil Pollution, Monitoring, Modeling and Restoration*, MDPI, Basel, Switzerland, 2024, ISBN 978-3-7258-0908-0
4. *Water*, special issue: *Assessing Hydrological Drought in a Climate Change: Methods and Measures*, https://www.mdpi.com/journal/water/special_issues/Hydrological_Drought
Book: *Assessing Hydrological Drought in a Climate Change: Methods and Measures*, MDPI, Basel, Switzerland, 2024, ISBN 978-3-7258-0906-6
5. *Atmosphere*, special issue: *Assessing Atmospheric Pollution and Its Impacts on the Human Health*, https://www.mdpi.com/journal/atmosphere/special_issues/Assessing_Atmospheric_Pollution
Book: *Assessing Atmospheric Pollution and its Impact on the Human Health*, MDPI, Basel, Switzerland, 2023, ISBN 978-3-0365-6321-3
6. *Journal of Chemistry*, special issue *Challenges and Opportunities in the Application of Chemometrics in the Pharmaceutical and Food Science Industries*, 2020, <https://www.hindawi.com/journals/jchem/osi/> (WOS)
7. *Remote sensing*, special issue *Remote Sensing of Geo-Hydrological Hazard Assessment*, 2020, https://www.mdpi.com/journal/remotesensing/special_issues/Geo-Hydrological_Process (WOS)
8. *Water*, special issue *Assessing water quality by statistical methods*, 2019, https://www.mdpi.com/journal/water/special_issues/Water_Quality_Statitcal_Analysis (WOS)
Book: *Assessing Water Quality by Statistical Methods*, MDPI, Basel, Switzerland, 2023, ISBN 978-3-0365-6359-6, 252 p.
9. *Journal of Chemistry*, special issue: *New trends in Monitoring and Removing the Pollutants from Water* <https://www.hindawi.com/journals/jchem/si/457973/cfp/>

10. *Journal of Environmental Management*, special issue: *Modeling the impact of human activity, behavior and decisions on the environment. Marketing and green consumer* vol. 204, part 3, 2017, <https://www.sciencedirect.com/science/journal/03014797/204/part/P3>
11. Recent Researches in System Sciences, WSEAS Press, 2011, ISBN 978-1-61804-023-7, ISSN 1792- 4235
12. Recent Researches in Educational Technology, WSEAS Press, 2011, ISBN 978-1-61804-021-3
13. Recent Advances in Mechanics, WSEAS Press, 2011, ISBN 978-1-61804-020-6
14. Recent Researches in Computer Science, WSEAS Press, 2011, ISBN 978-1-61804-019-0, ISSN 1792-4251
15. Recent Researches in Communication and IT, WSEAS Press, 2011, ISBN 978-1-61804-018-3
16. Recent Researches in Circuits, Systems, and Signal Processing, WSEAS Press, 2011, ISBN 978-1-61804-017-6
17. Recent Researches in Applied Mathematics, Simulation and Modelling, WSEAS Press, 2011, ISBN 978-1-61804-019-9, ISSN 1792- 4332
18. Computational Engineering in Systems Applications, Vol.II, WSEAS Press, 2011, ISBN: 978-1- 61804-014-5
19. Mathematical Methods, Computational Techniques, Intelligent Systems, WSEAS Press, 2010, ISBN: 978-960-474-188-5, ISSN: 1790-2769
20. Analele Științifice ale Universității Ovidius Constanța, seria Matematică, vol.XVII (3), 2009
21. Annals of "Ovidius" Univ. of Constanta, Civil Engineering Series, Special issue dedicated to the 5-th International Conference "Dynamical Systems and Applications", 2009
22. Seminar Series in Mathematics, Miscellanea 1: Second Part of the Proceedings of Conference of Romanian Math. Soc., „Ovidius” University Press, Constanța, 2000

MEMBER IN ORGANIZING COMMITTEES OF INTERNATIONAL CONFERENCES

- ITISE 2023, Gran Canaria, 14-16 July 2023
- ECOSUMMIT2023, 17-19.06.2023
- CiBv2022, Brasov, Romania, 4-5.12.2022
- CiBv2021, Brasov, Romania, 5-6.12.2021
- ITISE 2021, Gran Canaria, Spain, 17-19.07.2021
- The 6th International Conference on Water Resource and Environment (WRE 2020), Special Session: Modern Techniques for Hydro-meteorological Series Analysis and Forecast, online, 23-26.08.2020
- 12th International Conference on Sustainable Energy & Environmental Protection, SEEP 2019, Special Session: New trends in assessment and modelling the water, air and soil hazards, Sharjah, United Arab Emirates, 19-21.11.2019.
- The 5th International Conference on Water Resource and Environment (WRE 2019), Special Session: Modern Techniques for Hydro-meteorological Series Analysis and Forecast, Macao, 16-19.07.2019
- International Conference: The 11th Dynamical Systems, Mathematical, Physical Sciences and It's Engineering Applications, Philippines, 9-12.05.2018 <http://haydarakca.wixsite.com/akca/organising-committee>
- CEST2017, 31.08-2.09.2017, Rhodes, Greece, Special Session [Environmental data analysis and modelling](#)
- The 9th Dynamical Systems and Applications Conference, ICDSA 2017, 20 -23.07.2017, Antalya, Turkey
- EcoSummit 2016, 29.08 - 02.09.2016, Montpellier, France.
- 14th International Conference on Environmental Science and Technology, CEST2015, 3-5.09.2015, Rhodes, Greece, session
- 6th International Workshop on Soft Computing and Applications, 24 -26.07.2014, Timișoara, Soft Computing Techniques for Time-Series Analysis (SCTTSA – SOFA – 2014) http://sofa2014.org/documents/Special_Session_SCTTSA-SOFA-2014-SSProposal.pdf
- WSEAS Conference MAMECTIS'10, 3-6.05.2010, Sousse, Tunisia
- ICDSA 2009, 15 -19.07.2009, Constanta, Romania
- The 12nd Conference of Romanian Society of Probability and Statistics, 10-11.04.2009, Constanța, Romania
- 7-th Balkan Conference on Operational Research, 25 -28.05. 2005, Constanța, Romania

- International Conference on Analysis and Optimization of Differential Systems, 10 - 14. 09. 2002, Constanța, Romania
- Euroconference 2000, 1 –18.08.2000, Constanța, Romania
- The Conference of Romanian Society of Mathematical Sciences, June 2000, Constanța, Romania
- The XXII-nd Congres of Romanian – American Academy of Sciences and Arts, June 1997, Târgoviște, Romania

MEMBER IN SCIENTIFIC COMMITTEES OF INTERNATIONAL CONFERENCES

- ICASF 2024, Abu Dhabi, UAE
- MDIS 2024, Sibiu, 17-19.10.2024
- ITISE2024, Gran Canaria, Spain, 12-14.07.2024
- KES-IDT 2024, 20-22.06.2024, Santa Cruz. Madeira, Portugal, <http://idt-24.kesinternational.org/cmsIPCdisplay.php>
- ICDD 2024, Sibiu, Romania, 23-25.05.2024
- ITISE2023, Gran Canaria, 12-14.07.2023
- ICDD 2023, Sibiu, Romania, 11-13.05.05.2023
- KES-IDT 2022, 20-22.06.2024, <http://idt-22.kesinternational.org/cmsIPCdisplay.php>
- CiBv2022, Brasov, Romania, 4-5.11.2022
- MDIS 2022, Sibiu, Romania, 28-30.10.2022
- CiBv2021, Brasov, Romania, 5-6.11.2021
- MDIS 2021, Sibiu, Romania, 28-30.10.2021
- ITISE2021, Gran Canaria, 19-21.07.2021.
- KES2020, Verona, 16-18.09.2012, <http://kes2020.kesinternational.org/cmsIPCdisplay.php>
- WATER2020, Constanta
- KES-IDT 2019, Saint Julians, Malta, 17-19.07.2019, <http://idt-19.kesinternational.org/>
- MDIS 2019, Sibiu, Romania, 3-5.10.2018
- ICDD 2019, Sibiu, Romania, 16-18.05.2018
- KES-IDT 2018, Gold Coast, Australia, 20 -22.06.2018 <http://idt-18.kesinternational.org/cmsIPCdisplay.php>
- WATER2018, Constanta, Romania, 21-23.06.2018, <http://revista-constructii.univ-ovidius.ro/conferinte/index.php/water-2018>
- ICDD 2018, Sibiu, Romania, 17-19.05.2018
- International Conference: The 11 Dynamical Systems, Mathematical, Physical Sciences and It's Engineering Applications, Philippines, 9-12.05.2018 <http://haydarakca.wixsite.com/akca/organising-committee>
- CEST2017, Rhodes, Greece, 31.08-2.09.2017
- The 9th Dynamical Systems and Applications Conference, ICDSA 2017, 20 -23.07.2017, Antalya, Turkey
- MDIS 2017, Sibiu, Romania, 23-25.06.2017
- ICDD 2017, Sibiu, Romania, 19 -21.05.2017
- The 4th Abu Dhabi University Annual International Conference: Mathematical Science and Its Applications, Abu Dhabi, UAE, 20 - 22.04.2017
- KES - IDT-16, Smart Digital Futures 2016, Puerto de la Cruz, Tenerife, Spain, 15 – 17.06.2016 <http://idt-16.kesinternational.org/cmsIPCdisplay.php>
- WATER 2016, 23-25.06.2016, Constanța, Romania
- The 4th Abu Dhabi University Annual International Conference: Mathematical Science & its Applications, 23 25.12.2015, <http://www.adu.ac.ae/en-us/icmsa2015.aspx>
- KES - IDT-15, Smart Digital Futures 2015, Sorento, Italy, 15 – 17.06.2015 <http://idt-15.kesinternational.org/cmsIPCdisplay.php>
- MDIS 28.10 - 1.11.2015, Sibiu, Romania
- ICDD 2015 - 21-23.05.2015, Sibiu, Romania
- CSCS20: The 20th International Conference on Control Systems and Computer Science, Bucharest, Romania, 27-29.05.2015
- The 3rd Abu Dhabi University Annual International Conference: Mathematical Science & its Applications, Abu Dhabi, UAE, 29.11- 02.12.2014

- ICDD 2014, Sibiu, Romania, 15-17.05.2014,
- MDIS 2013, Sibiu, Romania, 10-12.10.2013
- The 2nd Abu Dhabi University Annual International Conference: Mathematical Science & its Applications - 27-30.12.2013
- ICDD 2013, 16 -18.05.2013, Sibiu, Romania
- WATER 2011, Constanța, Romania, 16 – 19.06.2010
- The 6th International conference: Dynamical Systems and Applications - 2010, Antalya, Turkey, 10-14.07.2010
-

CHAIRPERSON

1. CiBv2022, Brașov, Romania, 2-3.11.	2023
2. ITISE 2023, Gran Canaria, 12-14.07.	2023
3. CiBv2022, online, 4-5.11.	2022
4. CiBv2020, online, 5-6.11.	2020
5. The 5th International Conference on Water Resource and Environment (WRE 2019) Macao, China, 16-19.07.	2019
6. CEST2017, Rhodes, Greece, 31.08-2.09.	2017
7. EcoSummit 2016, EcoSummit 2016, Montpellier, France, 29.08 -02.09.	2016
8. SOFA 2014, Timisoara, Romania 24-26.07.	2014
9. ACACOS'12 Rovaniemi, Finland, 7 – 12.04.	2012
10. MCBC'12, Iasi, Romania, 13-15.06.	2012
11. MCBE'12, Iasi, Romania, 2012, 13-15.06.	2012
12. MAMECTIS'11, Iasi, Romania, 1-3.07	2011
13. MAMECTIS'10, Sousse, Tunisia, 3-6.05.	2010
14. The 5th ICDSA, Constanta, Romania, 15 - 18.06.	2009
15. 7-th World Congress in Probability and statistics, Singapore, 14-19.07.	2008
16. Conference 2007: Dynamical systems and applications, Izmir, Turkey, 1-6.07	2007
17. 22 nd European conference on operational research, Prague, 8-11.07.	2007
18. Conference 2004: Dynamical systems and applications, Antalya, Turkey, 5-10.07	2004
19. International Conference on Applied Mathematics, Baia Mare, Romania, 23-26.09	2004

INVITED CONFERENCES

- WRE2020, online, 23-26.08.2020
- WRE2019, Macao, 16-19.07.2019
- SMSA 2017, Berlin, 20 – 24.02.2017
- IC-ANMBES 2014, Brașov, Romania, 13-15.06.2014
- MCBC'12, Iasi, Romania, 13-15.06. 2012
- MCBE'12, Iasi, Romania, 13 -15.06. 2012
- ACACOS'12, Rovaniemi, Finland, 18 – 20.04.2012
- University of Reading, Department of Meteorology, 13.11.2012
- Instituto Politecnico Nacional, Mexico City, 5.08.2010

REVIEWER (SELECTION OF JOURNALS INDEXED IN WOS and SCOPUS)

- Administrative Sciences
- Atmosphere
- Neurocomputing Letters
- Applied Mathematics and Information Science
- An. Sci. Ovidius Univ. of Constanta, Civil Engineering
- An. St. Univ Ovidius din Constanta, Matematică
- An. Sci. Ovidius Univ. of Constanta, Civil Engineering
- Atmospheric Pollution Research
- CATENA
- Chemical Engineering Communications

- Chaos, Solitons and Fractals
- Environmental Monitoring and Assessment
- Geophysical Research Letters
- Hydrological Sciences Journal
- Hydrology
- IEEE transactions on Fuzzy Systems
- Information Technology Research Journal
- International Journal of Mathematics and Mathematical Sciences
- Mathematics
- Neural Computing & Applications
- Risks
- Remote Sensing
- Science Journal of Business Management
- Scientific Reports
- Scientific Research and Essays
- Stochastic Environmental and Risk Assessment
- Sustainability
- Tellus A
- Water SA

ATTENDED SEMINARS, SUMMER SCHOOLS, CONFERENCES

1. ECAI 2024, Iași, Romania, 28-29.06	2024
2. CoDIT 2024, Malta, 1-4.07	2024
3. ICCECME 2024, 4-6.11, Maldives	2024
4. CiBv 2024, Brasov, Romania, 7-8.11	2024
5. ConsGeoCad 2024, Chișinău, 15-17.11.	2024
6. CiBv 2023, Brasov, Romania, 2-3.11.	2023
7. ITISE 2023, 14-17.06 (online)	2023
8. ICCECME 2023, 19-21.07, Gran Canaria, Spain, 14-17.06	2023
9. CiBv 2022, Brasov, Romania, 4-5.11.	2022
10. MDIS 2022, Sibiu, Romania, 28-30.10.	2022
11. CiBv 2021, Brasov, Romania, 4-5.11.	2021
12. ICSTCC 2020, Iasi, Romania, 22-23.10.	2021
13. ICECCME 2021, Mauritius, 7-8.10.	2021
14. ITISE 2021, Gran Canaria, 17-19.07	2021
15. ECAI 2021, online, 1-2.07	2021
16. PIGE 2021, online, 1-2.07	2021
17. CiBv2020, online, 5-6.11.	2020
18. WRE2020, online, 23-26.08.	2020
19. MDIS 2020, online, 22-24.10.	2020
20. SEEP2019, Sharjah, UAE, 18-21.11.	2019
21. WRE2019, Macao, 16-19.07.	2019
22. The 4th International Scientific Conference Sea-CONF2019, Constanța, 17-18.05.	2019
23. WaterEnergyNexus, Salerno, Italy, 14-17.11.	2018
24. IC-ANMBES, Brașov, 23-25.05.	2018
25. 1st ASET Multiconference, Innovations in Engineering Education, Abu Dhabi, 4.04.	2018
26. 1st ASET Conference, Sustainable Environment and Urban Infrastructure, Dubai, 6-7.02.	2018
27. ICCF 2017, Lisbon, 4-8.09.	2017
28. CEST 2017, Rhodes, Greece, 31.08 – 2.09	2017
29. 5 th Abu Dhabi University Annual International Conference: Mathematics and Its Applications, Abu Dhabi, UAE, 20 – 22.04	2017
30. UAE Math Day, Sharjah University, UAE, 11.03.	2017
31. SMSA 2017, Berlin, Germany, 20 - 24.02.	2017

32. 28 th IBIMA 2016, Sevilla, Spain, 9-10.11.	2016
33. EcoSummit 2016, Montpellier, France, 29.08 - 02.09.	2016
34. Theodor Angheluta Conference 2016 – The 15 th Conference on Applied Mathematics and Computer Science, Cluj - Napoca, Romania, 5 - 7.07.	2016
35. International Conference on Sciences and Applications, Abu Dhabi University, 23-26.12	2015
36. MDIS 2015, Sibiu, Romania, 29.10 - 2.11.	2015
37. 14 th International Conference on Environmental Science and Technology, CEST2015, Rhodes, Greece, 3 - 5.09.	2015
38. SOFA 2014, Timisoara, Romania, 24 - 26.07.	2014
39. IC-ANMBES Brasov, Romania, 13 - 15.06	2014
40. EcoImpuls 2013, Timișoara, Romania, 7 - 8.11.	2013
41. MDIS 2013, Sibiu, Romania, 12 - 14.10.	2013
42. ICAM 8, Baia Mare, Romania, 25-28.09.	2013
43. Theodor Angheluta Seminar, Cluj – Napoca, Romania, 29 - 31.08.	2013
44. ICNAAM – A XII-a ediție a Conferinței Internaționale „Matematici Aplicate și Analiză Neliniară”, Târgoviște, Romania, 22 - 24.06.	2013
45. Workshop on Algebraic and Analytic Number Theory and Their Applications, Constanta, Romania, 23 – 24.05	2013
46. EGU Viena, Austria, 15 - 18.04.	2013
47. Conferința internațională de Chimie Analitică, <i>Analytical Chemistry for a Better Life</i> , RO-ICAC' 2012, Târgoviște, Romania, 18 - 21.09.	2012
48. ACACOS'12 Rovaniemi, Finland, 18 - 20.04.	2012
49. MCBC'12, Iasi, Romania, 13 - 15.06.	2012
50. MCBE'12, Iasi, Romania, 2012, 13 - 15.06.	2012
51. ACACOS'12 Rovaniemi, Finland, Romania, 18 - 20.04.	2012
52. MAMECTIS, Iasi, Romania, 1 - 3.07	2011
53. Modern stochastic with Applications II, Kyev, Ukraine, 7 - 11.09.	2010
54. 5 th Advanced Summer School in Economics and Econometrics, Rethymno, Creete, 1 - 8.07. 2010	
55. CSCC'10, Corfu, Greece	2010
56. MAMECTIS'10, Sousse, Tunisia, 0.3-0.6.05	2010
57. 9th Balkan Conference on Operational Research, Constanța, Romania, 2-6.09.	2009
58. 13th WSEAS International Conference on computers, Rhodos Island, Greece, 23-25.07.	2009
59. 5th International Conference Dynamical Systems and Applications, Constanța, Romania, 15-18.06.	2009
60. EGU Viena, 13-18.04.	2009
61. The 12-th Conference of SPSR, Constanța, Romania, 10-11.04.	2009
62. 10th WSEAS Conference on Evolutionary Computing, Prague, Czech Republic, 23-25.03.	2009
63. MACMESE'08, MATERIALS'08, Bucharest, Romania, 7-9.11.	2008
64. 7th Workshop on Mathematical Modelling of Environmental and Life Sciences Problems, Constanța, Romania, 22-25.10.	2008
65. The role of hydrology in water resources management, Capri, Italy, 13-16.10.	2008
66. Fall Colloquium on the Physics of Weather and Climate: Regional Weather Predictability and Modelling, Trieste, Italy, 29.09 - 12.10.	2008
67. 7-th World Congress in Probability and Statistics, Singapore, 14-19.07.	2008
68. World Congress on Engineering 2008, London, UK, 2-4.07.	2008
69. 1-st Regional Symposium on Electrochemistry, Istria, Croatia, 4-8.05.	2008
70. EGU Viena, Austria, 13-18.04.	2008
71. The third international Conference on mathematical Sciences, ICM 2008, Al Ain, UAE, 3-6.03,	2008
72. 9-th International Conference on Precipitations, Paris, 12-14.11.	2007
73. Advanced school and conference on statistics and applied probability in life sciences, Trieste, Italy, 24.09-12.10	2007
74. Biomedical modeling and cardiovascular – respiratory control: Theory and Practice, Graz, Austria, 22.07-4.08	2007

75. 8 - th Balkan Workshop on Applied Physics, Constanta, Romania 2007
76. 22nd European conference on operational research, Prague, 8-11.07. 2007
77. Conference 2007: Dynamical systems and applications, 1-7.07.2007, Izmir, Turkey 2007
78. Academics days of Timisoara, Romania, 24-25.05 2007
79. The 10 –th Conference of the Romanian Society of Probability and Statistics,
Bucharest, Romania, 13-14.04 2007
80. 5 – th International Conference on Applied Mathematics, Baia Mare, Romania, 21-24.09. 2006
81. Fifth workshop on Mathematical Modelling of Environmental and Life Sciences
Problems, Constanta, Romania, 10-13.09 2006
82. 7- th Balkan Workshop on Applied Physics, Constanta, Romania, 4-7.07 2006
83. 7-th International conference on Applied Analysis and Differential Equations, Iasi,
4-9.09 2006
84. Modern stochastic: theory and applications, Kyev, Ukraine, 19 –23.06 2006
85. The 10-th International Conference on applied mathematics and Computer Sciences,
Baisoara, Romania, 30.05-2.06 2006
86. Forth workshop on Mathematical Modelling of Environmental and Life Sciences
Problems, Constanta, Romania, 7-10.09 2005
87. 7-th Balkan Conference on Operational Research, Constanta, Romania, 25-28.05. 2005
88. Second Conference on self Similarity and Applications, Toulouse, France, 20-24.06. 2005
89. Workshop on Fractal Analysis, Eisenach, Germany, 11-17.09 2005
90. Conference on „Practical applications of fractals”, Abdus Salam ICTP – Trieste, Italy,
7-9.11. 2004
91. 6th International Conference on Hydraulic Machinery, Timisoara, Romania 2004
92. Conference 2004: Dynamical systems and applications, Antalya, Turkey, 1-7.07. 2004
93. The 9th International Conference on Applied Mathematics, Computer Science and
Mechanics, Baisoara, Romania. 11-14.05. 2004
94. Third workshop on Mathematical Modelling of Environmental and Life Sciences
Problems, Constanta, Romania 2004
95. Workshop on "Modeling in Life and Material Sciences and in Technology", Abdus
Salam ICTP – Trieste, Italy, March 2004
96. International Symposium of Mathematics and Applications, Timisoara, Romania 2003
97. ICTAMI 2003, Alba – Iulia, Romania 2003
98. Pannonian Applied Mathematics Meeting, Budapest, Hungary 2003
99. Pannonian Applied Mathematics Meeting, Constanta, Romania 2002
100. Analysis and optimization of differential systems International Conference, Constanta,
Romania 2002
101. The 6th Balkan Conference on Operational Research, Thessaloniki, Greece 2002
102. Third International Conference on Applied Mathematics, ICAM3, Borsa, Romania 2002
103. The eighth International Conference on Applied Mathematics, Computer Science and
Mechanics, Baisoara, Romania 2002
104. Pannonian Applied Mathematics Meeting, Baia Mare, Romania 2001
105. International Conference on Naval and marine Education, Constanta, Romania 2001
106. Annual Meeting of the Romanian Mathematics Society, Constanta, Romania 2001
107. International Conference on Nonlinear operators, Differential Equations and
Applications, ICNODEA 2001, Cluj - Napoca, Romania 2001
108. "Hidrotehnica XXI", Iasi, Romania 2001
109. The 3rd International Conference of PHd. Students, Miskolc, Hungary 2001
110. The Symposium "The engineering of the water resources", Bucharest, Romania 2001
111. International Conference on Complex Analyzes and related topics. The IXth
Romanian – Finnish Seminar, Brasov, Romania 2001
112. Pannonian Applied Mathematics Meeting, God, Hungary 2001
113. International Symposium "The land reclamation between the present and the future"
Timisoara, Romania 2000
114. The Symposium of "P. Maior" University, Targu – Mures, Romania 2000
115. International Symposium "10 years of economic education at Oradea", Baile Felix,
Romania 1999

116. SECOMAR'99, Constantza, Romania 1999
 117. The Symposium "The role of the Statistics in the market economy", Bucharest, Romania 1999
 118. Conference on Applied and Industrial Mathematics, Oradea, Romania 1998
 119. The second National Conference of the Romanian Society of Mathematics,
 Cluj - Napoca, Romania 1998
 120. SIMPEC' 98, Braşov, Romania 1998

Teaching experience in academic positions

- *Transilvania University*

Numerical Advanced Analysis

Finite Element Method

Sustainability

Environmental Engineering

Project Mangement

- *Ovidius University*

Statistics (2000 - 2015)

Capital market and portofolio management (2011-2013)

Econometrics (2009 – 2015)

Economic forecasting (2009 – 2015)

Calculus I, II, III (2003 - present)

Complex functions (2000 - present)

Linear algebra and analytical geometry (2000 - 2013)

Probability and statistics (2002 – 2005, 2009 - 2015)

Discrete mathematics (2003-2004)

Complements of mathematics (2006 - 2008, 2009 - 2010)

Applied statistics

- *Higher Colleges of Technology*

Calculus I, II, III

Applied Mathematics

Quantitative Reasoning

Statistics

- *Abu Dhabi University*

Calculus I, II, III (2011)

Statistics

- *Valahia University*

Algebra (1992-1993)

Analysis (1992 – 1998)

Mathematical models of economical phenomena (2005-2006)

Mathematics for economists, Operational Research (1992 -1999)

PUBLICATIONS

I. ARTICLES IN WOS JOURNALS

1. Bărbulescu, V. Mârza, Electrical effect induced at the boundary of an acoustic cavitation zone, *Acta Physica Polonica B*, vol. **37**(2), 2006, 507 - 518 (ISSN 0587 – 4254), <http://www.actaphys.uj.edu.pl/fulltext?series=Reg&vol=37&page=507>
2. A. Bărbulescu, Models of the voltage induced by cavitation in hydrocarbons, *Acta Physica Polonica B*, vol. **37**(10), 2006, 2919 - 2931 (ISSN 0587- 4254), <http://www.actaphys.uj.edu.pl/fulltext?series=Reg&vol=37&page=2919>
3. A. Bărbulescu, C. Koncsag, A new model for estimating mass transfer coefficients for the extraction of ethanethiol with alkaline solutions in packed column, *Applied Mathematical Modelling*, vol. **31**(11), 2007, 2515 - 2523 (ISSN 0307 – 904X), <https://doi.org/10.1016/j.apm.2006.10.003>
4. C. Koncsag, A. Bărbulescu, Modeling the removal of mercaptans from liquid hydrocarbon streams in structured packing columns, *Chemical Engineering and Processing*, vol. **47**(9-10), 2008, 1717 - 1725 (ISSN 0255 – 2701), <https://doi.org/10.1016/j.cep.2007.09.015>

5. A. Bărbulescu, C. Koncsag, Mass transfer at Propanethiol - Buthanethiol Alkaline Extraction from Sour Petroleum Fraction, *Revista de Chimie*, vol. **60**(4), Apr. 2009, 414 – 418 (ISSN 0034 – 7752), <http://www.revistadechimie.ro/arhiva.asp?lim=ro&rev=ch>
6. A. Bărbulescu, E. Băutu, Alternative models in Precipitation Analysis, *An. Șt. Univ. Ovidius Math*, vol. **17**(3), 2009, 45 - 68 (ISSN 1224 – 1784), <http://www.anstuocmath.ro/volume-xvii-2009-fascicola-3>
7. A. Bărbulescu, E. Băutu, Mathematical models of climate evolution in Dobrudja, *Theoretical and Applied Climatology*, vol. **100**(1 – 2), 2010, 29 - 44, (ISSN 0177 – 798X) <https://doi.org/10.1007/s00704-009-0160-7>
8. A. Bărbulescu, E. Băutu, A hybrid approach for modeling financial time series, *International Arab Journal of Information and Technology*, vol. **9**(4), July 2012, 327- 335 (ISSN 1683-3198), <http://www.iajit.org/>
9. C. Maftai, A. Barbulescu, Statistical analysis of precipitation time series in the Dobrudja region, *MAUSAM*, vol. **63**(4), Oct.2012, 553 – 564, <http://metnet.imd.gov.in/imdmausam/>
10. E. Băutu, A. Bărbulescu, Forecasting meteorological time series using soft computing methods: an empirical study, *Applied Mathematics and Information Science*, vol. **7**(4), 2013, 1297 – 1306 (ISSN 1935-0090), <http://naturalspublishing.com/show.asp?forID=1&pgid=0>
11. A. Bărbulescu, L. Barbeș, Mathematical models for inorganic pollutants in Constanța area, Romania, *Revista de chimie*, vol. **64**(7), 2013, 747 - 753 (ISSN 0034 – 7752), <http://www.revistadechimie.ro/pdf/BARBULESCU%20A.pdf%207%2013.pdf>
12. A. Bărbulescu, L. Barbeș, Assessment of surface water quality Techirghiol Lake using statistical analysis, *Revista de chimie* (ISSN 0034 – 7752), vol. **64**(8), 2013, 868 - 874. <http://www.revistadechimie.ro/pdf/BARBULESCU%20A.pdf%208%2013.pdf>
13. J. Deguenon, A. Bărbulescu, Attachment observability of a rotating body-beam system, *An St. Univ Ovidius Constanta*, vol. **21**(3), 2013, 81 - 93 (ISSN 1224-1784), <http://www.anstuocmath.ro/volume-xxi-2013-fascicola-3>
14. A. Bărbulescu, Something about h-measures of sets in plane, *An St. Univ Ovidius Constanta*, vol. **22**(1), 2014, 35 – 40 (ISSN 1224-1784), <http://www.anstuocmath.ro/volume-xxii-2014-fascicola-1>
15. A. Bărbulescu, J. Deguenon, Models for trend of precipitation in Dobrudja, *Environmental Engineering and Management Journal*, vol. **13**(4), 2014, 873-880 (ISSN 1582 - 9596)
16. A. Bărbulescu, J. Deguenon, Change point detection and models for precipitation evolution. Case study, *Romanian Journal of Physics*, vol. **59**(5-6), 2014, 590 - 600, http://www.nipne.ro/rjp/2014_59_5-6/0590_0600.pdf.
17. L. Barbeș, A. Bărbulescu, C. Rădulescu, C. Stihi, E. D. Chelărescu, Determination of heavy metals in leaves and bark of Populus Nigra L by atomic absorption spectrometry, *Romanian Reports on Physics*, vol. **66**(3), 2014, 877 - 886 (ISSN 1221-1451 43 822)
18. A. Bărbulescu, L. Barbeș, Models for the pollutants correlation in the Romanian Littoral, *Romanian Reports in Physics*, vol. **66**(4), 2014, 1189 - 1199 (ISSN 1221-145143822).
19. A. Bărbulescu, J. Deguenon, About the variations of precipitation and temperature evolution in the Romanian Black Sea Littoral, *Romanian Reports in Physics*, vol. **67**(2), 2015, 625 - 637,
20. A. E. Sterpu, A. Bărbulescu, L. Barbeș, C.- I. Koncsag, Modelling the mixing process of industrial and domestic wastesludge, *Environmental Engineering and Management Journal*, vol. **14**(6), 1241 - 1246.
21. A. Bărbulescu, C. Maftai, Modeling the climate in the area of Techirghiol Lake (Romania), *Romanian Journal of Physics*, vol. **60**(7-8), 2015, 1163 – 1170.
22. A. - A. Neagu, C. Koncsag, A. Bărbulescu, E. Botez, Calculation methods for gasket plate heat exchangers used in vegetable oil manufacture. Comparative study, *Revista de chimie*, vol. **66**(9), 2015, 1504 – 1508.
23. A. Bărbulescu, M. Gilca, Taste of medicinal plants: a potential tool in predicting ethnopharmacological activities?, *Journal of Ethnopharmacology*, vol. **174**, 464 – 473, 2015, [doi:10.1016/j.jep.2015.08.040](https://doi.org/10.1016/j.jep.2015.08.040).
24. A. A. Neagu, C. I. Koncsag, A. Bărbulescu, E. Botez, Estimation of pressure drop in gasket plate heat exchangers, *Ovidius University Annals of Chemistry*, vol. **27**, no. 1, 2016, pp. 62 – 72.
25. A. Bărbulescu, L. Barbeș, Statistical Analysis and Mathematical Models for the VOCs Concentrations on the Romanian Littoral. A case study, *Analytical Letters*, vol. **49**(3), 2016, 387 – 399,
26. A. Bărbulescu, A new method for estimation the regional precipitation, *Water Resources Management*, vol. **30**(1), 33-42, 2016, <http://link.springer.com/article/10.1007/s11269-015-1152-2>.
27. A. Bărbulescu, Modeling temperature evolution. Case study, *Romanian Reports in Physics*, vol. **68**(2), 788 - 798, 2016.

28. A. Bărbulescu, Models for temperature evolution in Constanta area (Romania), *Romanian Journal of Physics*, vol. **61(3-4)**, 2016, 676 - 686.
29. C. Maftei, A. Bărbulescu, A.A. Cârsteanu, Long-range dependence in the time series of Taița River, *Hydrological Sciences Journal*, vol. **61(9)**, 2016, pp. 1740 - 1747. <https://doi.org/10.1080/02626667.2016.1171869>.
30. A. Bărbulescu, A. E. Sterpu, L. Barbes, C.- I. Koncsag, New correlation for the mixing of waste water sludge, *Romanian Journal of Physics*, vol. **62(1-2)**, 2017, 801.
31. L. Barbeș, A. Bărbulescu, Monitoring and assesment of heavy metals in soil and leaves of Populus Nigra L, *Environmental Engineering and Management Journal*, vol. **16(1)**, 2017, 187 – 196, http://www.eemj.icpm.tuiasi.ro/pdfs/vol16/no1/20_491_Barbes_13.pdf.
32. A. Barbulescu, Modeling the impact of the human activity, behavior and decisions on the environment. Marketing and green consumer, *Journal of Environmental Management*, **204** part 3, 2017, 813, <https://doi.org/10.1016/j.jenvman.2017.10.028>
33. A. Barbulescu, L. Barbes, Modeling the carbon monoxide dissipation in Timisoara, Romania, *Journal of Environmental Management*, **204** part 3, 2017, 831 – 838, <http://dx.doi.org/10.1016/j.jenvman.2017.02.047>.
34. A. Barbulescu, L. Barbes, Mathematical modeling of sulfur dioxide concentration in the Western part of Romania, *Journal of Environmental Management*, **204** part 3, 2017, 825 – 830, <http://dx.doi.org/10.1016/j.jenvman.2017.02.052>.
35. A. Negrea, A. Gabor, C.-M. Davidescu, M. Ciopec, P. Negrea, N. Duteanu, A. Barbulescu, Rare Earth Elements Removal from Water Using Natural Polymer, *Scientific Reports*, **8**:316, 2018, <http://www.nature.com/articles/s41598-017-18623-0>
36. A. Bărbulescu, Y. Nazzal, F. Howari, Statistical analysis and estimation of the regional trend of aerosol size over the Arabian Gulf Region during 2002 -2016, *Scientific Reports*, **8**:9571, 2018, <https://www.nature.com/articles/s41598-018-27727-0>
37. A. Bărbulescu, L. Barbes, Y. Nazzal, New model for inorganic pollutants dissipation on the northern part of the Romanian Black sea coast, *Romanian Journal of Physics*, vol. **63(5-6)**, 806, 2018.
38. A. Bărbulescu, Do the time series statistical properties influence the goodness of fit of GRNN models? Study on financial series, *Applied Stochastic Models in Business and Industry*, 2018, 1-11, <https://doi.org/10.1002/asmb.2315>
39. A. Bărbulescu, N. Duteanu, A. Negrea, M. M. Ghangrekar, New trends in monitoring and removing the pollutants from water, *Journal of Chemistry*, vol. **2018**, 8394086, <https://doi.org/10.1155/2018/8394086>
40. A. Moraru, A. Bărbulescu, C. Duhnea, Consumption and hysteresis - the new, the old, and the challenge, *Economic Research - Ekonomiska Istraživanja*, vol. **31(1)**, 2019, 1965 - 1980, <http://doi.org/10.1080/1331677x.2018.1498365>.
41. A. Bărbulescu, A. Moraru, C. Duhnea, Ecolabelling in the Romanian Seaside Hotel Industry – marketing considerations, financial constraints, perspectives, *Sustainability*, vol. **11(1)**, 2019, 265, <https://doi.org/10.3390/su11010265>
42. Y. Nazzal, A. Bărbulescu, F. M. Howari, A. Yousef, A. A. Al-Taani, F. Al Aydaros, M. Naseem, New insight to dust storm from historical records, UAE, *Arabian Journal of Geosciences*, vol. **12(13)**, 2019, 396, DOI: 10.1007/s12517-019-4555-1.
43. A. Bărbulescu, N. Popescu – Bodorin, History-based long-term predictability of regional monthly fuzzy data, *Stochastic Environmental Research and Risk Assessment*, vol. **33(7)**, 2019, 1435-1441, DOI: 10.117/s00477-019-01702-1 **Q1**
44. A. Bărbulescu, A. Dani, Statistical analysis of the water quality of the major rivers in India, *Romanian Reports in Physics*, vol. **71(4)**, 2019, 716.
45. A. Bărbulescu, Y. Nazzal, Statistical analysis of the dust storms in the United Arab Emirates, *Atmospheric Research*, vol. **231**, 2020, 104669.
46. A. Bărbulescu, L. Barbeș, Assessing the Danube River water quality of the Danube River (at Chiciu, Romania) by statistical methods, *Environmental Earth Sciences*, vol. **79(6)**, 2020, 122.
47. A. Bărbulescu, A. Băutu, E. Băutu, Particle Swarm Optimization for the Inverse Distance Weighting Distance method, *Applied Sciences-Basel*, vol. **10(6)**, 2020, 2054.
48. J. Deguenon, A. Bărbulescu, Theoretical observers for infinite-dimensional skew-symmetric systems, *Analele Stiințifice ale Universitatii Ovidius din Constanta, seria Matematica*, vol. **28(1)**, Mar 2020, pp. 135-140, DOI: 10.2478/auom-2020-0010.
49. D. Simian, F. Stoica, A. Bărbulescu, Automatic Optimized Support Vector Regression for Financial Data Prediction, *Neural Computing & Applications*, vol. **32(7)**, Apr. 2020, 2383-2396.

50. A. Bărbulescu, Assessing the groundwater vulnerability: DRASTIC and DRASTIC-like Methods: A review, *Water*, **12**(5), May 2020, 1356.
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