

# LISTA DE LUCRĂRI

**Conf. Univ. Dr. Fiz. Ing. CAZACU MARIUS MIHAI**

## **I. Teza de doctorat**

Titlul tezei de doctorat: *Contribuții la implementarea primei rețele LIDAR la scară națională pentru caracterizarea optică a aerosolilor atmosferici*, Universitatea “Alexandru Ioan Cuza” din Iasi, Data susținerii: 17.12.2010, Conducătorul de doctorat: Prof. Dr. DOROHOI Dana-Ortansa. Teza susținută pentru obținerea Titlului științific de Doctor in Fizică în baza ordinului MECTS nr. 4387/06.06.2011

## **II. Lista de lucrări publicate în jurnale ISI (cu factor de impact)**

1. Nicolae, D., Ciocan, G.-A., Nemuc, A., Nicolae, V., Talianu, C., Vasilescu, J., Dandocsi, A., Radu, C., **Cazacu, M. M.**, Vulturescu, V., & Belegante, L. (2026). *Examining the characteristics of aerosols: a statistical analysis based on a decade of lidar and photometer observations at the Eastern border of ACTRIS*. *Atmos. Meas. Tech.*, 19, 1179–1199. <https://doi.org/10.5194/amt-19-1179-2026>
2. Timofte, A., Bostan, D. C., Apetroaie, C., Miclăuș, I. M., & **Cazacu, M. M.** (2025). *The 50-Year Evolution of the Planetary Boundary Layer in the Southern Part of Romania: Comparison Between the Determinations by the Stull Method and the Reanalysis Data from ERA5*. *Atmosphere* 2025, Vol. 16, Page 1247, 16(11), 1247. <https://doi.org/10.3390/ATMOS16111247>
3. Ciocan, G., Nemuc, A., Belegante, L., & **Cazacu, M. M.** (2025). *Mineral dust intrusions in Southeastern Romania: insights from seventeen years of sun photometer data*. *Journal of Optoelectronics and Advanced Materials*, 27(July-August 2025), 354–367
4. Tanasa, I., **Cazacu, M. M.**, Botan, D., Atkinson, J. D., Sebestyen, V., & Sluser, B. (2025). *From Aerosol Optical Depth to Risk Assessment: A Novel Framework for*

*Environmental Impact Statistics of Air Quality Using AERONET*. *Environments* 2025, Vol. 12, Page 285, 12(8), 285. <https://doi.org/10.3390/ENVIRONMENTS12080285>

5. Drăgoi, L., **Cazacu, M. M.**, & Breabăn, I.-G. (2025). *Evaluation of Scenarios for the Application of the Future PM<sub>2.5</sub> and PM<sub>10</sub> Standards: A Case Study of Three Urban Areas in Romania and Implications for Public Policies*. *Environments* 2025, Vol. 12, Page 373, 12(10), 373. <https://doi.org/10.3390/ENVIRONMENTS12100373>

6. Drăgoi, L., **Cazacu, M. M.**, & Breabăn, I. G. (2025). *Analysis of the PM<sub>2.5</sub>/PM<sub>10</sub> Ratio in Three Urban Areas of Northeastern Romania*. *Atmosphere*, 16(6), 720. <https://doi.org/10.3390/atmos16060720>

7. Ababei, R. V., Garofalide, S., Bulai, G., Dimitriu, G. D., Gurlui, S., & Cazacu, M. M. (2025). *Unveiling the Correlation between Lyapunov Coefficients and Deep Learning Performance Using Ceilometer Data*. *IEEE Geoscience and Remote Sensing Letters*, 22, 1–5. <https://doi.org/10.1109/LGRS.2025.3557150>

8. **Cazacu, M. M.**, Roșu, A. I., Ababei, R. V., Roșu, A., Vasincu, D., Nica, D. C., Rusu, O., Bruma, A. B., & Agop, M. (2024). *Investigating Nonlinear Dynamics in Atmospheric Aerosols during the Transition from Laminar to Turbulent Flow*. *Atmosphere*, 15(3).

9. Roman, A.-M., Cimpoescu, R., Pricop, B., **Cazacu, M. M.**, Zegan, G., Istrate, B., Cocean, A., Chelariu, R., Moscu, M., Bădărău, G., Cimpoescu, N., & Ivănescu, M. C. (2024). *Investigations on the Degradation Behavior of Processed FeMnSi-xCu Shape Memory Alloys*. *Nanomaterials* 2024, Vol. 14, Page 330, 14(4), 330.

10. Roman, A. M., Cimpoescu, R., Pricop, B., Lohan, N. M., **Cazacu, M. M.**, Bujoreanu, L. G., Panaghie, C., Zegan, G., Cimpoescu, N., & Murariu, A. M. (2023). *Influence of Dynamic Strain Sweep on the Degradation Behavior of FeMnSi–Ag Shape Memory Alloys*. *Journal of Functional Biomaterials*, 14(7), 377.

11. Dragoi (Oniu), L., Breabăn, I. G., & **Cazacu, M. M.** (2023). *2017 – 2020 trends of particulate matter PM<sub>10</sub> concentrations in the cities of Suceava and Botoșani*. *Present Environment and Sustainable Development*, 17(1), 335–349.

12. Bostan, D., Miclăuș, I., Apetroaie, C., Voiculescu, M., Timofte, A., & **Cazacu, M. M.** (2023). *Long-Range Transport Analysis Based on Eastern Atmospheric Circulation and Its Impact on the Dust Event over Moldavia , Romania in August 2022 Circulation and Its Impact on the Dust Event over Moldavia ,.* *Atmosphere*, 14(August), 1366.

13. Tanasa, I., **Cazacu, M. M.**, & Sluser, B. (2023). *Air Quality Integrated Assessment: Environmental Impacts, Risks and Human Health Hazards*. *Applied Sciences (Switzerland)*, 13(2). <https://doi.org/10.3390/app13021222>

14. Roman, A. M., Chelariu, R., Cimpoesu, R., Stirbu, I., Ionita, I., **Cazacu, M. M.**, Prisecariu, B. A., Cimpoesu, N., Pietrusiewicz, P., & Sodor, A. (2022). *Analysis of the corrosion rate of FeMn-Si biodegradable material*. Archives of Metallurgy and Materials, 67(4), 1243–1250. <https://doi.org/10.24425/amm.2022.141048>
15. Luțcanu, M., Coteață, M., Bernevig, M. A., Nechifor, C. D., **Cazacu, M. M.**, Paraschiv, P., Istrate, B., Bădărău, G., Sandu, I. G., & Cimpoesu, N. (2022). *Obtaining and Analyzing the Al<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub> Ceramic Layers on Metallic Substrate*. Archives of Metallurgy and Materials, 67(2), 479–485.
16. Panaghie, C., Cimpoesu, N., Benchea, M., Roman, A., Manole, V., Alexandru, A., Cimpoesu, R., **Cazacu, M. M.**, Wnuk, I., & Zegan, G. (2022). *“In-vitro” Tests on New Biodegradable Metallic Material Based on ZnMgY*. Archives of Metallurgy and Materials, 67(2), 587–594.
17. **Cazacu, M. M.**, Roșu, I. A., Bibire, L., Vasincu, D., Rotundu, A. M., & Agop, M. (2022). *Theoretical and Experimental Designs of the Planetary Boundary Layer Dynamics through a Multifractal Theory of Motion*. Fractal and Fractional, 6(12). <https://doi.org/10.3390/fractalfract6120747>
18. Radinschi, I., Grammenos, T., Spanou, A., Chattopadhyay, S., & **Cazacu, M. M.** (2022). *Landau-Lifshitz and Weinberg Energy Distributions for the Static Regular Simpson-Visser Space-Time Geometry*. Symmetry 2022, Vol. 14, Page 900, 14(5), 900. <https://doi.org/10.3390/SYM14050900>
19. Nica, D.-C., **Cazacu, M. M.**, Constantin, D.-E., Nedeff, V., Nedeff, F., Vasincu, D., Roșu, I.-A., & Agop, M. (2022). *Boundary Layer via Multifractal Mass Conductivity through Remote Sensing Data in Atmospheric Dynamics*. Fractal and Fractional, Vol. 6, Page 250, 6(5), 250. <https://doi.org/10.3390/FRACTALFRACT6050250>
20. Roșu, I. A., Nica, D. C., **Cazacu, M. M.**, & Agop, M. (2022). *Cellular Self-Structuring and Turbulent Behaviors in Atmospheric Lamellar Channels*. Frontiers in Earth Science, 9, 1344. <https://doi.org/10.3389/FEART.2021.801020>
21. Roșu, I., Nica, D., **Cazacu, M. M.**, & Agop, M. (2021). *Towards Possible Lamellar Channels through Turbulent Atmospheres in a Multifractal Paradigm*. Atmosphere, 12(8), Article 1038. <https://doi.org/10.3390/atmos12081038>

22. Roșu, I. A., **Cazacu, M. M.**, & Agop, M. (2021). *Multifractal model of atmospheric turbulence applied to elastic lidar data*. *Atmosphere*, 12(2), 1–25. <https://doi.org/10.3390/atmos12020226>
23. Radinschi, I., Grammenos, T., Chakraborty, G., Chattopadhyay, S., & **Cazacu, M. M.** (2021). *Einstein and Møller Energy-Momentum Distributions for the Static Regular Simpson–Visser Space-Time*. *Symmetry*, 13(9), Article 1622. <https://doi.org/10.3390/sym13091622>
24. Radinschi, I., Grammenos, T., Sahoo, P. K., Chattopadhyay, S., & **Cazacu, M. M.** (2021). *Einstein and Møller energies of a particular asymptotically Reissner–Nordström non-singular black hole solution*. *Astronomische Nachrichten*. <https://doi.org/10.1002/asna.202113917>
25. Radinschi, I., Sahoo, P. K., Grammenos, T., Chattopadhyay, S., & **Cazacu, M. M.** (2020). *Localization of Energy and Momentum in an Asymptotically Reissner–Nordström Non-Singular Black Hole Space-Time Geometry*. *Universe*, 6(5), Article 69. <https://doi.org/10.3390/universe6050069>
26. Radinschi, I., Grammenos, T., Rahaman, F., **Cazacu, M. M.**, Spanou, A., & Chakraborty, J. (2020). *On the energy of a non-singular black hole solution satisfying the weak energy condition*. *Universe*, 6(10), Article 169. <https://doi.org/10.3390/universe6100169>
27. Roșu, A. I., **Cazacu, M. M.**, Ghenadi, S. A., Bibere, L., & Agop, M. (2020). *On a multifractal approach of turbulent atmosphere dynamics*. *Frontiers in Earth Science*, 8, Article 216. <https://doi.org/10.3389/feart.2020.00216>
28. Țîmpu, S., Sfică, L., Dobri, R.V., **Cazacu, M. M.**, Nita, A.I., & Birsan, M.V. (2020). *Tropospheric Dust and Associated Atmospheric Circulations over the Mediterranean Region with Focus on Romania’s Territory*. *Atmosphere*, 11(4), Article 349. <https://doi.org/10.3390/atmos11040349>
29. **Cazacu, M. M.**, Pelin, V., Radinschi, I., Sandu, I., Ciocan, V., Sandu, I. G., & Gurlui, S. (2020). *Effects of meteorological factors on the hydrophobization of specific calcareous geomaterials from Repedea - Iasi area, under the urban ambient air exposure*. *International Journal of Conservation Science*, 11(4), 1019–1030.
30. Rosu, I.A., Ferrarese, S., Radinschi, I., Ciocan, V., & **Cazacu, M. M.** (2019). *Evaluation of Different WRF Parametrizations over the Region of Iasi with Remote Sensing Techniques*. *Atmosphere*, 10(9), Article 559. <https://doi.org/doi:10.3390/atmos10090559>
31. Rosu, I.-A., **Cazacu, M. M.**, Prelipceanu, O., & Agop, M. (2019). *A Turbulence-Oriented Approach to Retrieve Various Atmospheric Parameters Using Advanced Lidar Data Processing Techniques*. *Atmosphere*, 10(1), Article 38. <https://doi.org/10.3390/atmos10010038>

32. Radinschi, I., Grammenos, T., Rahaman, F., Spanou, A., **Cazacu, M. M.**, Chattopadhyay, S., & Pasqua, A. (2018). *Localization of Energy-Momentum for a Black Hole Spacetime Geometry with Constant Topological Euler Density*. *Advances in High Energy Physics*, 2018, Article 5212696. <https://doi.org/10.1155/2018/5212696>
33. Bulai, G., Rusu, O., **Cazacu, M. M.**, Tudorache, F., Chazallon, B., Focsa, C., & Gurlui, S. (2018). *Structural, magnetic and humidity sensing properties of rare earth doped cobalt ferrite thin films synthesized by pulsed laser deposition*. *Journal of Ovonic Research*, 14(2), 119–128.
34. Cocean, A., Cocean, I., **Cazacu, M. M.**, Bulai, G., Iacomi, F., & Gurlui, S. (2018). *Atmosphere self-cleaning under humidity conditions and influence of the snowflakes and artificial light interaction for water dissociation simulated by the means of COMSOL*. *Applied Surface Science*, 443, 83–90.
35. Cocean, A., Pelin, V., **Cazacu, M. M.**, Cocean, I., Sandu, I., Gurlui, S., & Iacomi, F. (2017). *Thermal effects induced by laser ablation in non-homogeneous limestone covered by an impurity layer*. *Applied Surface Science*, 424(3), 324–329. <https://doi.org/10.1016/j.apsusc.2017.03.172>
36. Radinschi, I., Fratiman, V., Ciocan, V., & **Cazacu, M. M.** (2017). *Interactive computer simulations for standing waves*. *Computer Applications in Engineering Education*, 25(3), 521–529. <https://doi.org/10.1002/cae.21818>
37. Banica, A., Bobric, E. D., **Cazacu, M. M.**, Timofte, A., Gurlui, S., & Breaban, I. G. G. (2017). *Integrated assessment of exposure to traffic-related air pollution in Iasi city, Romania*. *Environmental Engineering and Management Journal*, 16(9), 2147–2163.
38. **Cazacu, M. M.**, Tudose, O., Boscornea, A., Buzdugan, L., Timofte, A., & Nicolae, D. (2017). *Vertical and temporal variation of aerosol mass concentration at Magurele – Romania during EMEP / PEGASOS campaign*. *Romanian Reports in Physics*, 69(2), 1–15.
39. **Cazacu, M. M.**, Tudose, O. G., Timofte, A., Rusu, O., Apostol, L., Leontie, L., & Gurlui, S. (2016). *A case study of the behavior of aerosol optical properties under the incidence of a Saharan dust intrusion event*. *Applied Ecology and Environmental Research*, 14(3), 183–194. [http://dx.doi.org/10.15666/aeer/1403\\_183194](http://dx.doi.org/10.15666/aeer/1403_183194)
40. Timofte, A., Belegante, L., **Cazacu, M. M.**, Albina, B., Talianu, C., & Gurlui, S. (2015). *Study of planetary boundary layer height from LIDAR measurements and ALARO model*. *Journal of Optoelectronics and Advanced Materials*, 17(7–8), 911–917.
41. Belegante, L., **Cazacu, M. M.**, Timofte, A., Toanca, F., Vasilescu, J., Rusu, M. I., Ajtai, N., Stefanie, H. I., Vetres, I., Ozunu, A., & Gurlui, S. (2015). *Case study of the first volcanic*

ash exercise in Romania using remote sensing techniques. *Environmental Engineering and Management Journal*, 14(11), 2503–2514.

42. **Cazacu, M. M.**, Timofte, A., Unga, F., Albina, B., & Gurlui, S. (2015). *AERONET data investigation of the aerosol mixtures over Iasi area, One-year time scale overview*. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 153, 57–64. <https://doi.org/10.1016/j.jqsrt.2014.09.004>

43. Papayannis, A., Nicolae, D., Kokkalis, P., Biniotoglou, I., Talianu, C., Belegante, L., Tsaknakis, G., **Cazacu, M. M.**, Vetres, I., & Ilic, L. (2014). *Optical, size and mass properties of mixed type aerosols in Greece and Romania as observed by synergy of lidar and sunphotometers in combination with model simulations: A case study*. *Science of the Total Environment*, 500–501, 277–294. <https://doi.org/10.1016/j.scitotenv.2014.08.101>

44. Unga, F., **Cazacu, M. M.**, Timofte, A., Bostan, D., Mortier, A., Dimitriu, D. G., Gurlui, S., & Goloub, P. (2013). *Study of tropospheric aerosol types over Iasi , Romania , during summer of 2012*. *Environmental Engineering and Management Journal*, 12(2), 297–303.

45. **Cazacu, M. M.**, Timofte, A., Talianu, C., Nicolae, D., Danila, M. N., Unga, F., Dimitriu, D. G., & Gurlui, S. (2012). *Grimsvotn Volcano: atmospheric volcanic ash cloud investigations, modelling-forecast and experimental environmental approach upon the Romanian area*. *Journal of Optoelectronics and Advanced Materials*, 14(5–6), 517–522.

46. Vetres, I., Ionel, I., **Cazacu, M. M.**, & Balin, I. (2012). *Necessity of complementary vertically-resolved lidar observation for ground air pollution analysis in Western Romania*. *Journal of Environmental Protection and Ecology*, 13(2), 409–419.

47. Timofte, A., **Cazacu, M. M.**, Radulescu, R., Belegante, L., Dimitriu, D. G., & Gurlui, S. (2011). *Romanian lidar investigation of the Eyjafjallajokull volcanic ash*. *Environmental Engineering and Management Journal*, 10(1), 91–97.

48. **Cazacu, M. M.**, Timofte, A., Balin, I., Dimitriu, D. G., & Gurlui, S. (2011). *Complementary atmospheric urban pollution studies in the North-East region of Romania, Iasi county*. *Environmental Engineering and Management Journal*, 10(1), 139–145.

49. Covasnianu, A., **Cazacu, M. M.**, Libralesso, N., Galisson, L., Memier, M., & Balin, I. (2007). *Digital Terrain Model by airborne LIDAR technique: an essential tool for hydrologic risks assessment*. *Journal of Optoelectronics and Advanced Materials*, 9(11), 3529–3532.

50. Iacomì, F., Apetroaei, N., Calin, G., Zodieriu, Gh., **Cazacu, M. M.**, Scarlat, C., Goian, V., Menzel, D., Jursic, I., & Schoenes, J. (2007). *Structure and surface morphology of Mn-implanted TiO<sub>2</sub>*. *Thin Solid Films*, 515(16 SPEC. ISS.), 6402–6406. <https://doi.org/10.1016/j.tsf.2006.11.188>

### III. Lista de lucrări publicate în jurnale ISI (fără factor de impact). Proceedings-uri indexate ISI

51. Pelin, V., Rusu, O., **Cazacu, M. M.**, Gurlui, S., Sandu, A. V., Radinschi, I., Ciocan, V., & Sandu, I. (2018). *Assessment of Hydrophobic Coating on Porous Calcareous Rocks Surface Exposed in Urban Ambient Air Pollution*. IOP Conference Series: Materials Science and Engineering, 374(1), 012091. <https://doi.org/10.1088/1757-899X/374/1/012091>

52. Radinschi, I., Fratiman, V., **Cazacu, M. M.**, Ciocan, V., & Covatariu, G. (2018). *Javascript computer simulation for damped oscillations in a series RLC circuit, a tool to improve students' learning*. Proceedings of EDULEARN18 Conference, (pp. 6015–6024). <https://doi.org/10.21125/edulearn.2018.1438>

53. <https://doi.org/10.21125/iceri.2018.1112>Radinschi, I., **Cazacu, M. M.**, Covatariu, G., Ciocan, V., Verdes, M., & Helepiciu (Gradinaru), C. M. (2018). *The effect of the use of computer simulations and virtual physics laboratory in gender performance of physics learning*. ICERI Proceedings (pp. 0549–0555).

54. Gurlui, S., **Cazacu, M. M.**, Timofte, A., Rusu, O., Bulai, G., & Dimitriu, D. (2018). *Space- and time-resolved Raman and breakdown spectroscopy: Advanced lidar techniques*. EPJ Web of Conferences, 176, Article no. 01028, (pp. 1–4). <https://doi.org/10.1051/epjconf/201817601028>

55. Sfiică, L., Iordache, I., Ichim, P., Leahu, A., **Cazacu, M. M.**, Gurlui, S., & Trif, C.-R. (2018). *The Influence of Weather Conditions and Local Climate on Particulate Matter (PM10) Concentration in Metropolitan Area of Iasi, Romania*. Present Environment and Sustainable Development, 12(2), 47–69. <https://doi.org/10.2478/pesd-2018-0029>

56. **Cazacu, M. M.**, Tudose, O., Balanici, D., & Balin, I. (2018). *Research and development of commercial lidar systems in Romania: Critical review of the ESYRO lidar systems developed by SC Enviroscopy SRL (ESYRO)*. EPJ Web of Conferences, Vol. 176, Article no. 11005, (pp. 1–4). <https://doi.org/10.1051/epjconf/201817611005>

57. Pelin, V., Rusu, O., Sandu, I. G., Vasilache, V., Gurlui, S., Sandu, A. V., **Cazacu, M. M.** & Sandu, I. G. G. (2017). *Approaching on Colorimetric Change of Porous Calcareous Rocks Exposed in Urban Environmental Conditions from Iasi - Romania*. IOP Conference Series- Materials Science and Engineering, Vol. 209, Issue 1, Article no. 012080 (pp.:1 - 8). <https://doi.org/10.1088/1757-899X/209/1/012080>

58. Covatariu, G., **Cazacu, M. M.**, Radinschi, I., Ciocan, V., Fratiman, V., & Turcanu, F. E. (2017). *Statistical survey of the outcome of effective use of computer simulations in students learning*. EDULEARN Proceedings: 9th International Conference on Education and New Learning Technologies (EDULEARN17), (pp. 887–893). ISBN 978-84-697-3777-4.

59. Albina, B., **Cazacu, M. M.**, Timofte, A., Dimitriu, D. G., & Gurlui, S. O. (2014). *Studies of planetary boundary layer by infrared thermal imagery*. AIP Conference Proceedings, 1634(174), (pp. 174–179). <https://doi.org/10.1063/1.4903034>

60. Danila, M.N., **Cazacu, M. M.**, Gurlui, S., 2012: *Python utility: Laser-atmosphere interaction extended to network data management. 5th Romania TIER 2 federation grid, cloud & high performance computing science (RO-LCG)*. IEEE. S. 90–92;

61. Tudose, O.-G., **Cazacu, M. M.**, Timofte, A., Balin, I. , 2011: *ESYROLIDAR system developments for troposphere monitoring of aerosols and clouds properties*. Proc. SPIE. 8177 S. 817716-817716–10;

62. Grimberg, R., Savin, A., Steigmann, R., Andreescu, A., Iftimie, N., **Cazacu, M. M.**, Tamburrino, A., Melikhov, Y., Chen, Z., Udpa, L. , 2008: *Lifetime Prediction of Pressure Tubes in PHWR Nuclear Power Plants using Eddy Current Data*. Electromagn. Nondestruct. Eval. 31 S. 257–262;

#### **IV. Lista de lucrări publicate în jurnale indexate in baze de date internaționale (BDI)**

63. Oniu, L. D., **Cazacu, M. M.**, & Breabăn, I.-G. (2026). Mann–Kendall trends and air quality assessment of PM10 and PM2.5 in three urban areas of northeast Romania, 2017-2024. *Georeview*, 36(1), 207–226. <https://doi.org/10.4316/GEOREVIEW.2026.01.14>

64. Luțcanu, M., Munteanu, C., Kicsi, G., Roman, A. M., Croitoru, C. G., Prisecariu, B. A., **Cazacu, M. M. M.**, Știrbu, I., Chicet, D. L., & Cimpoeșu, N. (2023). *Analysis of water jet cutting of metal-ceramic elements made through atmospheric plasma spraying technique*. *Materials Today: Proceedings*, 72, 550–553. <https://doi.org/10.1016/j.matpr.2022.10.037>

65. Apetroaie, C., Bostan, D.-C., Timofte, A., Bostan, S., & **Cazacu, M. M.** (2022). *Usage of Atmospheric Sounding to Characterize the Meteorological Events on the Night of 23/24 August, 2022*. *Bulletin of the Polytechnic Institute from Iași: Chemistry and Chemical Engineering Section*, 68(2), 33–62. <https://doi.org/10.2478/bipmf-2022-0008>

66. Apetroaie, C., Timofte, A., Bostan, D.-C., Bostan, S., & **Cazacu, M. M.** (2022). *The description of important historical moments in terms of meteorological aspects*. Bulletin of the Polytechnic Institute from Iași: Chemistry and Chemical Engineering Section, 68(3), 53–69. <https://doi.org/10.2478/bipmf>
67. Chiruță C., Tănasă I.M., Roșu I.A., Tudose O.G., Slușer B., **Cazacu, M. M.**, (2022). *Case study of the evidence of PM1 & PM2.5 contribution on PM10 from Podul de Piatra– Iasi city*, Bulletin of the Polytechnic Institute of Iasi, Section Mathematics. Theoretical Mechanics, Physics, Volume 68(72), No. 1, doi:10.2478/bipmf-2022-0004
68. Rosu, A.I., Voiculescu, M., Constantin, D., Rosu, A., Timofte, A., **Cazacu, M. M.**, (2022). *Quantifying atmospheric dynamics predictions through atmospheric laminar channels*, Report series in aerosol science, Nr. 250, Abstract Book - 1st ACTRIS Science Conference 2022, ISBN 978-952-7276-80-8
69. Roșu A. I., Cazacu A., Bodale I., **Cazacu, M. M.** (2020), *Developing a concrete inequality condition for Taylor’s hypothesis in common turbulent atmospheric flows*, Bulletin of the Polytechnic Institute of Iasi, Section Mathematics. Theoretical Mechanics, Physics, vol. 66(70), No.4, pag. 49–55.
70. Roșu A. I., **Cazacu, M. M.** (2020), *Further developments of a multifractal model of atmospheric turbulence*, Bulletin of the Polytechnic Institute of Iasi, Section Mathematics. Theoretical Mechanics, Physics, vol. 66(70), No. 3, pag. 77–91.
71. Pelin, V., Radinschi, I., Ciocan, V., Sandu, I., Coman, T. B., & **Cazacu, M. M.** (2020). *Preliminary Evaluation of Coating Hydrophobization of Natural Stone from Repedea - Iasi area (Romania)*. Revista de Chimie, 71(1), 273–282. <https://doi.org/10.37358/RC.20.1.7845>
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