

LISTA DE LUCRĂRI

Dr. Doina-Nicoleta Nicolae

Articole publicate ca autor principal sau autor corespondent

Articole WoS 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., and 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, *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 19, 1179–1199. <https://doi.org/10.5194/amt-19-1179-2026>
2. Talianu, C, Vasilescu, J., **Nicolae, D***, Ilie, A., Dandocsi, A., Nemuc, A., Belegante, L. (2025). High-resolution air quality maps for Bucharest using a mixed-effects modeling framework. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 9(25), 4639-4654. <https://doi.org/10.5194/acp-25-4639-2025>
3. **Nicolae, D.**, Talianu, C., Vasilescu, J., Dandocsi, A. M., Belegante, L., Nemuc, A., Toanca, F., Ilie, A., Dandocsi, A. V., Nicolae, S. M., Ciocan, G., Vulturescu, V., & Tudose, O. G. (2025). How Does the Location of Power Plants Impact Air Quality in the Urban Area of Bucharest? *ATMOSPHERE*, 16(6), 636. <https://doi.org/10.3390/atmos16060636>
4. **Nicolae, D.**, Vasilescu, J., Talianu, C., Biniotoglou, I., Nicolae, V., Andrei, S., Antonescu, B. (2018). A neural network aerosol-typing algorithm based on lidar data. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 19(18), 14511-14537. <https://doi.org/10.5194/acp-18-14511-2018>
5. 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), <https://www.webofscience.com/wos/alldb/full-record/WOS:000402495900016>
6. **Nicolae, D.**, Nemuc, A., Müller, D., Talianu, C., Vasilescu, J., Belegante, L. (2013). Characterization of fresh and aged biomass burning events using multiwavelength Raman lidar and mass spectrometry. *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 118(7), 2956–2965, <https://doi.org/10.1002/jgrd.50324>

Articole și proceedings-uri indexate

1. **Nicolae, D.**, Talianu, C., Vasilescu, J., Nicolae, V., Stachlewska, I.S. (2018). Strengths and limitations of the NATALI code for aerosol typing from multiwavelength Raman lidar observations. *EPJ Web of Conferences*, 176. <https://doi.org/10.1051/epjconf/201817605005>
2. **Nicolae, D.**, Vasilescu, J., Talianu, C., Dandocsi, A. (2016). Independent retrieval of aerosol type from lidar. *EPJ Web of Conferences*, 119. <https://doi.org/10.1051/epjconf/201611918002>
3. **Nicolae, D.**, Nemuc, A., Belegante, L. (2010). Mix of volcanic ash and Saharan dust over Romania, during Eyjafjallajökull eruption. *Proceedings of SPIE*, 7832. <https://doi.org/10.1117/12.869021>
4. **Nicolae, D.**, Belegante, L., Nemuc, A. (2010). Laser remote sensing in atmosphere investigation. *Optoelectronics and Advanced Materials, Rapid Communications*, 4(12), 1946–1951, <https://www.webofscience.com/wos/alldb/full-record/WOS:000286043400005>

5. **Nicolae, D**, Vasilescu, J, Carstea, E, Stebel, K, Prata, F (2010). Romanian Atmospheric research 3D Observatory: synergy of instruments. *ROMANIAN REPORTS IN PHYSICS*, 4(62), 838-853, <https://www.webofscience.com/wos/alldb/full-record/WOS:000286575200017>
6. **Nicolae, D**, Talianu, C, Nemuc, A, Carstea, E (2008). Benefits and drawbacks of laser remote sensing in atmospheric research. *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS*, 4(70), 5-14, <https://www.webofscience.com/wos/alldb/full-record/WOS:000262993700002>
7. **Nicolae, D.**, Talianu, C., Mamouri, R.-E., Carstea, E., Papayannis, A., Tsaknakis, G. (2008). Air mass modification processes over the Balkans area detected by aerosol Lidar techniques. *Optoelectronics and Advanced Materials, Rapid Communications*. 2. 394-402, <https://www.webofscience.com/wos/alldb/full-record/WOS:000257145000017>
8. **Nicolae, D.**, Talianu, C., Radu, C., Stefan, S. (2007). Combining OPAC and lidar. *Proceedings of SPIE*, 6750. <https://doi.org/10.1117/12.737900>
9. **Nicolae, D.**, Talianu, C., Nemuc, A., Carstea, E., Ciuciu, J., Cristescu, C. (2006). A numerical model to improve the derivation of aerosols optical parameters from elastic backscatter lidar data. *Proceedings of SPIE*, 6367. <https://doi.org/10.1117/12.714436>
10. **Nicolae, D.**, Talianu, C., Ciuciu, J., Ciobanu, M., Babin, V. (2006). LIDAR monitoring of aerosols loading over Bucharest. *Journal of Optoelectronics and Advanced Materials (JOAM)*, Vol. 8, No. 1, pp. 242-246, <https://www.webofscience.com/wos/alldb/full-record/WOS:000236107300053>

Articole publicate în calitate de co-autor

Articole WoS cu factor de impact

1. Rovira, J, Savadkoohi, M, Chen, GI, Mocnik, G, Aas, W, Alados-Arboledas, L, Artinano, B, Aurela, M, Backman, J, Banerji, S, Beddows, D, Brem, B, Chazeau, B, Coen, MC, Colombi, C, Conil, S, Costabile, F, Coz, E, de Brito, JF, Eleftheriadis, K, Favez, O, Flentje, H, Freney, E, Gregoric, A, Gysel-Beer, M, Harrison, R, Hueglin, C, Hyvärinen, A, Ivancic, M, Kalogridis, AC, Keernik, H, Konstantinos, G, Laj, P, Liakakou, E, Lin, CS, Listrani, S, Luoma, K, Maasikmets, M, Manninen, HE, Marchand, N, dos Santos, SM, Mbengue, S, Mihalopoulos, N, **Nicolae, D**, Niemi, J, Norman, M, Ovadnevaite, J, Petit, JE, Platt, S, Prévôt, ASH, Pujadas, M, Putaud, JP, Riffault, V, Rigler, M, Rinaldi, M, Schwarz, J, Silvergren, S, Teinmaa, E, Teinilä, K, Timonen, H, Titos, G, Tobler, A, Vasilescu, J, Vratolis, S, Yttri, KE, Yubero, E, Zíková, N, Alastuey, A, Petäjä, T, Querol, X, Yus-Díez, J, Pandolfi, M (2025). A European aerosol phenomenology-9: Light absorption properties of carbonaceous aerosol particles across surface Europe. *ENVIRONMENT INTERNATIONAL*, (195). <http://dx.doi.org/10.1016/j.envint.2024.109185>
2. Sartelet, K, Kerckhoffs, J, Athanasopoulou, E, Lugon, L, Vasilescu, J, Zhong, J, Hoek, G, Joly, C, Park, SJ, Talianu, C, van den Elshout, S, Dugay, F, Gerasopoulos, E, Ilie, A, Kim, Y, **Nicolae, D**, Harrison, RM, Petäjä, T (2025). Air pollution mapping and variability over five European cities. *ENVIRONMENT INTERNATIONAL*, (199). <http://dx.doi.org/10.1016/j.envint.2025.109474>
3. Laj, P, Myhre, CL, Riffault, V, Amiridis, V, Fuchs, H, Eleftheriadis, K, Petäjä, T, Salameh, T, Kivekäs, N, Juurola, E, Saponaro, G, Philippin, S, Cornacchia, C, Arboledas, LA, Baars, H, Claude, A, De Mazière, M, Dils, B, Dufresne, M, Evangeliou, N, Favez, O, Fiebig, M, Haefelin, M, Herrmann, H, Höhler, K, Illmann, N, Kreuter, A, Ludewig, E, Marinou, E, Möhler, O, Mona, L, Murberg, LE, **Nicolae, D**, Novelli, A, O'Connor, E, Ohneiser, K, Altieri, RMP, Picquet-Varrault, B, van Pinxteren, D, Pospichal, B, Putaud, JP, Reimann, S, Siomos, N, Stachlewska, I, Tillmann, R, Voudouri, A, Wandinger, U, Wiedensohler, A, Apituley, A, Comerón, A, Gysel-Beer, M,

- Mihalopoulos, N, Nikolova, N, Pietruczuk, A, Sauvage, S, Sciare, J, Skov, H, Svendby, T, Swietlicki, E, Tonev, D, Vaughan, G, Zdimal, V, Baltensperger, U, Doussin, JF, Kulmala, M, Pappalardo, G, Sundet, SS, Vana, M (2024). Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS): The European Research Infrastructure Supporting Atmospheric Science. *BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY*, 7 (105). <http://dx.doi.org/10.1175/BAMS-D-23-0064.1>
4. Papanikolaou, CA, Papayannis, A, Gidarakou, M, Abdullaev, SF, Ajtai, N, Baars, H, Balis, D, Bortoli, D, Bravo-Aranda, JA, Collaud-Coen, M, de Rosa, B, Dionisi, D, Eleftheratos, K, Engelmann, R, Floutsi, AA, Abril-Gago, J, Goloub, P, Giuliano, G, Gumà-Claramunt, P, Hofer, J, Hu, QY, Komppula, M, Marinou, E, Martucci, G, Mattis, I, Michailidis, K, Muñoz-Porcar, C, Mylonaki, M, Mytilinaios, M, **Nicolae, D**, Rodríguez-Gómez, A, Salgueiro, V, Shang, XX, Stachlewska, IS, Stefanie, HI, Szczepanik, DM, Trickl, T, Vogelmann, H, Voudouri, KA (2024). Large-Scale Network-Based Observations of a Saharan Dust Event across the European Continent in Spring 2022. *REMOTE SENSING*, 17(16). <http://dx.doi.org/10.3390/rs16173350>
 5. Tsekeri, A, Gialitaki, A, Di Paolantonio, M, Dionisi, D, Liberti, GL, Fernandes, A, Szkop, A, Pietruczuk, A, Pérez-Ramírez, D, Muñoz, MJG, Guerrero-Rascado, JL, Alados-Arboledas, L, Pantaleón, DB, Bravo-Aranda, JA, Kampouri, A, Marinou, E, Amiridis, V, Sicard, M, Comerón, A, Muñoz-Porcar, C, Rodríguez-Gómez, A, Romano, S, Perrone, MR, Shang, XX, Komppula, M, Mamouri, RE, Nisantzi, A, Hadjimitsis, D, Navas-Guzmán, F, Haefele, A, Szczepanik, D, Tomczak, A, Stachlewska, IS, Belegante, L, **Nicolae, D**, Voudouri, KA, Balis, D, Floutsi, AA, Baars, H, Miladi, L, Pascal, N, Dubovik, O, Lopatin, A (2023). Combined sun-photometer-lidar inversion: lessons learned during the EARLINET/ACTRIS COVID-19 campaign. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 24(16), 6025-6050. <http://dx.doi.org/10.5194/amt-16-6025-2023>
 6. Mereuta, A, Ajtai, N, Radovici, AT, Papagiannopoulos, N, Deaconu, LT, Botezan, CS, Stefanie, HI, **Nicolae, D**, Ozunu, A (2022). A novel method of identifying and analysing oil smoke plumes based on MODIS and CALIPSO satellite data. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 7(22), 5071-5098. <http://dx.doi.org/10.5194/acp-22-5071-2022>
 7. Calin, MA, Calin, AC, **Nicolae, DN** (2021). Application of airborne and spaceborne hyperspectral imaging techniques for atmospheric research: past, present, and future. *APPLIED SPECTROSCOPY REVIEWS*, 4(56), 289-323. <http://dx.doi.org/10.1080/05704928.2020.1774381>
 8. Markowicz, KM, Stachlewska, IS, Zawadzka-Manko, O, Wang, DX, Kumala, W, Chilinski, MT, Makuch, P, Markuszewski, P, Rozwadowska, AK, Petelski, T, Zielinski, T, Posyniak, M, Kaminski, JW, Szkop, A, Pietruczuk, A, Chojnicki, BH, Harenda, KM, Poczta, P, Uscka-Kowalkowska, J, Struzewska, J, Werner, M, Kryza, M, Drzeniecka-Osiadacz, A, Sawinski, T, Remut, A, Mietus, M, Wiejak, K, Markowicz, J, Belegante, L, **Nicolae, D** (2021). A Decade of Poland-AOD Aerosol Research Network Observations. *ATMOSPHERE*, 12(12). <http://dx.doi.org/10.3390/atmos12121583>
 9. Mylonaki, M, Giannakaki, E, Papayannis, A, Papanikolaou, CA, Komppula, M, **Nicolae, D**, Papagiannopoulos, N, Amodeo, A, Baars, H, Soupiona, O (2021). Aerosol type classification analysis using EARLINET multiwavelength and depolarization lidar observations. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 3(21), 2211-2227. <http://dx.doi.org/10.5194/acp-21-2211-2021>
 10. Stebel, K, Stachlewska, IS, Nemuc, A, Horalek, J, Schneider, P, Ajtai, N, Diamandi, A, Benesova, N, Boldeanu, M, Botezan, C, Markova, J, Dumitrache, R, Iriza-Burca, A, Juras, R, **Nicolae, D**, Nicolae, V, Novotny, P, Stefanie, H, Vanek, L, Vlcek, O, Zawadzka-Manko, O, Zehner, C (2021).

- SAMIRA-Satellite Based Monitoring Initiative for Regional Air Quality. *REMOTE SENSING*, 11(13). <http://dx.doi.org/10.3390/rs13112219>
11. Adam, M, **Nicolae, D**, Stachlewska, IS, Papayannis, A, Balis, D (2020). Biomass burning events measured by lidars in EARLINET - Part 1: Data analysis methodology. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 2 (20), 13905-13927. <http://dx.doi.org/10.5194/acp-20-13905-2020>
 12. Merlaud, A, Belegante, L, Constantin, DE, Den Hoed, M, Meier, AC, Allaart, M, Ardelean, M, Arseni, M, Bösch, T, Brenot, H, Calcan, A, Dekemper, E, Donner, S, Dörner, S, Dragomir, MCB, Georgescu, L, Nemuc, A, **Nicolae, D**, Pinardi, G, Richter, A, Rosu, A, Ruhtz, T, Schönhardt, A, Schuettemeyer, D, Shaiganfar, R, Stebel, K, Tack, F, Văjâiac, SN, Vasilescu, J, Vanhamel, J, Wagner, T, Van Roozendaal, M (2020). Satellite validation strategy assessments based on the AROMAT campaigns. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 10(13), 5513-5535. <http://dx.doi.org/10.5194/amt-13-5513-2020>
 13. Baars, H, Ansmann, A, Ohneiser, K, Haarig, M, Engelmann, R, Althausen, D, Hanssen, I, Gausa, M, Pietruczuk, A, Szkop, A, Stachlewska, IS, Wang, DX, Reichardt, J, Skupin, A, Mattis, I, Trickl, T, Vogelmann, H, Navas-Guzmán, F, Haeferle, A, Acheson, K, Ruth, AA, Tatarov, B, Müller, D, Hu, QY, Podvin, T, Goloub, P, Veselovskii, I, Pietras, C, Haeffelin, M, Fréville, P, Sicard, M, Comerón, A, García, AJF, Menéndez, FM, Córdoba-Jabonero, C, Guerrero-Rascado, JL, Alados-Arboledas, L, Bortoli, D, Costa, MJ, Dionisi, D, Liberti, GL, Wang, X, Sannino, A, Papagiannopoulos, N, Boselli, A, Mona, L, D'Amico, G, Romano, S, Perrone, MR, Belegante, L, **Nicolae, D**, Grigorov, I, Gialitaki, A, Amiridis, V, Soupiona, O, Papayannis, A, Mamouri, RE, Nisantzi, A, Heese, B, Hofer, J, Schechner, YY, Wandinger, U, Pappalardo, G (2019). The unprecedented 2017-2018 stratospheric smoke event: decay phase and aerosol properties observed with the EARLINET. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 23(19), 15183-15198. <http://dx.doi.org/10.5194/acp-19-15183-2019>
 14. Proestakis, E, Amiridis, V, Marinou, E, Biniotoglou, I, Ansmann, A, Wandinger, U, Hofer, J, Yorks, J, Nowottnick, E, Makhmudov, A, Papayannis, A, Pietruczuk, A, Gialitaki, A, Apituley, A, Szkop, A, Porcar, CM, Bortoli, D, Dionisi, D, Althausen, D, Mamali, D, Balis, D, **Nicolae, D**, Tetoni, E, Liberti, GL, Baars, H, Mattis, I, Stachlewska, IS, Voudouri, KA, Mona, L, Mylonaki, M, Perrone, MR, Costa, MJ, Sicard, M, Papagiannopoulos, N, Siomos, N, Burlizzi, P, Pauly, R, Engelmann, R, Abdullaev, S, Pappalardo, G (2019). EARLINET evaluation of the CATS Level 2 aerosol backscatter coefficient product. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 18(19), 11743-11764. <http://dx.doi.org/10.5194/acp-19-11743-2019>
 15. Nicolae, V, Talianu, C, Andrei, S, Antonescu, B, Ene, D, **Nicolae, D**, Dandocsi, A, Toader, VE, Stefan, S, Savu, T, Vasilescu, J (2019). Multiyear Typology of Long-Range Transported Aerosols over Europe. *ATMOSPHERE*, 9(10). <http://dx.doi.org/10.3390/atmos10090482>
 16. Voudouri, KA, Siomos, N, Michailidis, K, Papagiannopoulos, N, Mona, L, Cornacchia, C, **Nicolae, D**, Balis, D (2019). Comparison of two automated aerosol typing methods and their application to an EARLINET station. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 16(19), 10961-10980. <http://dx.doi.org/10.5194/acp-19-10961-2019>
 17. Fragkos, K, Antonescu, B, Giles, DM, Ene, D, Boldeanu, M, Efstathiou, GA, Belegante, L, Nicolae, D (2019). Assessment of the total precipitable water from a sun photometer, microwave radiometer and radiosondes at a continental site in southeastern Europe. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 3(12), 1979-1997. <http://dx.doi.org/10.5194/amt-12-1979-2019>
 18. Granados-Muñoz, MJ, Sicard, M, Papagiannopoulos, N, Barragán, R, Bravo-Aranda, JA, **Nicolae, D** (2019). Two-dimensional mineral dust radiative effect calculations from CALIPSO

- observations over Europe. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 20(19), 13157-13173. <http://dx.doi.org/10.5194/acp-19-13157-2019>
19. Papagiannopoulos, N, Mona, L, Amodeo, A, D'Amico, G, Claramunt, PG, Pappalardo, G, Alados-Arboledas, L, Guerrero-Rascado, JL, Amiridis, V, Kokkalis, P, Apituley, A, Baars, H, Schwarz, A, Wandinger, U, Biniotoglou, I, **Nicolae, D**, Bortoli, D, Comerón, A, Rodríguez-Gómez, A, Sicard, M, Papayannis, A, Wiegner, M (2018). An automatic observation-based aerosol typing method for EARLINET. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 21(18), 15879-15901. <http://dx.doi.org/10.5194/acp-18-15879-2018>
 20. Belegante, L, Bravo-Aranda, JA, Freudenthaler, V, **Nicolae, D**, Nemuc, A, Ene, D, Alados-Arboledas, L, Amodeo, A, Pappalardo, G, D'Amico, G, Amato, F, Engelmann, R, Baars, H, Wandinger, U, Papayannis, A, Kokkalis, P, Pereira, SN (2018). Experimental techniques for the calibration of lidar depolarization channels in EARLINET. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 2(11), 1119-1141. <http://dx.doi.org/10.5194/amt-11-1119-2018>
 21. Merlaud, A, Tack, F, Constantin, D, Georgescu, L, Maes, J, Fayt, C, Mingireanu, F, Schuettmeyer, D, Meier, AC, Schönardt, A, Ruhtz, T, Bellegante, L, **Nicolae, D**, Den Hoed, M, Allaart, M, Van Roozendaal, M (2018). The Small Whiskbroom Imager for atmospheric composition monitoring (SWING) and its operations from an unmanned aerial vehicle (UAV) during the AROMAT campaign. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 1(11), 551-567. <http://dx.doi.org/10.5194/amt-11-551-2018>
 22. Toanca, F., Stefan, S., Labzovski, L., Belegante, L., Andrei, S., **Nicolae, D.** (2017). Study of fog events using remote sensing data. *ROMANIAN REPORTS IN PHYSICS*, 69(1). <https://www.webofscience.com/wos/alldb/full-record/WOS:000401305200024>
 23. Meier, AC, Schonhardt, A, Bosch, T, Richter, A, Seyler, A, Ruhtz, T, Constantin, DE, Shaiganfar, R, Wagner, T, Merlaud, A, Van Roozendaal, M, Belegante, L, **Nicolae, D**, Georgescu, L, Burrows, JP (2017). High-resolution airborne imaging DOAS measurements of NO₂ above Bucharest during AROMAT. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 5(10), 1831-1857. <http://dx.doi.org/10.5194/amt-10-1831-2017>
 24. Kokkalis, P, Amiridis, V, Allan, JD, Papayannis, A, Solomos, S, Biniotoglou, I, Bougiatioti, A, Tsekeri, A, Nenes, A, Rosenberg, PD, Marengo, F, Marinou, E, Vasilescu, J, **Nicolae, D**, Coe, H, Bacak, A, Chaikovskiy, A (2017). Validation of LIRIC aerosol concentration retrievals using airborne measurements during a biomass burning episode over Athens. *ATMOSPHERIC RESEARCH*, (183), 255-267. <http://dx.doi.org/10.1016/j.atmosres.2016.09.007>
 25. Chaikovskiy, A, Dubovik, O, Holben, B, Bril, A, Goloub, P, Tanré, D, Pappalardo, G, Wandinger, U, Chaikovskaya, L, Denisov, S, Grudo, J, Lopatin, A, Karol, Y, Lapyonok, T, Amiridis, V, Ansmann, A, Apituley, A, Alados-Arboledas, L, Biniotoglou, I, Boselli, A, D'Amico, G, Freudenthaler, V, Giles, D, Granados-Muñoz, MJ, Kokkalis, P, **Nicolae, D**, Oshchepkov, S, Papayannis, A, Perrone, MR, Pietruczuk, A, Rocadenbosch, F, Sicard, M, Slutsker, I, Talianu, C, De Tomasi, F, Tsekeri, A, Wagner, J, Wang, X (2016). Lidar-Radiometer Inversion Code (LIRIC) for the retrieval of vertical aerosol properties from combined lidar/radiometer data: development and distribution in EARLINET. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 3(9), 1181-1205. <http://dx.doi.org/10.5194/amt-9-1181-2016>
 26. Marmureanu, L., Vasilescu, J., Nemuc, A., **Nicolae, D.**, Belegante, L. (2016). Aerosol characterization based on chemical composition and optical properties. *ROMANIAN JOURNAL OF PHYSICS*, 61(9-10), 1635-1649, <https://www.webofscience.com/wos/alldb/full-record/WOS:000390291700017>
 27. Wandinger, U, Freudenthaler, V, Baars, H, Amodeo, A, Engelmann, R, Mattis, I, Gross, S, Pappalardo, G, Giunta, A, D'Amico, G, Chaikovskiy, A, Osipenko, F, Slesar, A, **Nicolae, D**, Belegante, L, Talianu, C, Serikov, I, Linné, H, Jansen, F, Apituley, A, Wilson, KM, de Graaf, M,

- Trickl, T, Giehl, H, Adam, M, Comerón, A, Muñoz-Porcar, C, Rocadenbosch, F, Sicard, M, Tomás, S, Lange, D, Kumar, D, Pujadas, M, Molero, F, Fernández, AJ, Alados-Arboledas, L, Bravo-Aranda, JA, Navas-Guzmán, F, Guerrero-Rascado, JL, Granados-Muñoz, MJ, Preissler, J, Wagner, F, Gausa, M, Grigorov, I, Stoyanov, D, Iarlori, M, Rizi, V, Spinelli, N, Boselli, A, Wang, X, Lo Feudo, T, Perrone, MR, De Tomasi, F, Burlizzi, P (2016). EARLINET instrument intercomparison campaigns: overview on strategy and results. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 3(9), 1001-1023. <http://dx.doi.org/10.5194/amt-9-1001-2016>
28. Bravo-Aranda, JA, Belegante, L, Freudenthaler, V, Alados-Arboledas, L, **Nicolae, D**, Granados-Muñoz, MJ, Guerrero-Rascado, JL, Amodeo, A, D'Amico, G, Engelmann, R, Pappalardo, G, Kokkalis, P, Mamouri, R, Papayannis, A, Navas-Guzmán, F, Olmo, FJ, Wandinger, U, Amato, F, Haeffelin, M (2016). Assessment of lidar depolarization uncertainty by means of a polarimetric lidar simulator. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 10(9), 4935-4953. <http://dx.doi.org/10.5194/amt-9-4935-2016>
29. Granados-Muñoz, MJ, Navas-Guzmán, F, Guerrero-Rascado, JL, Bravo-Aranda, JA, Biniotoglou, I, Pereira, SN, Basart, S, Baldasano, JM, Belegante, L, Chaikovsky, A, Comerón, A, D'Amico, G, Dubovik, O, Ilic, L, Kokkalis, P, Muñoz-Porcar, C, Nickovic, S, **Nicolae, D**, Olmo, FJ, Papayannis, A, Pappalardo, G, Rodríguez, A, Schepanski, K, Sicard, M, Vukovic, A, Wandinger, U, Dulac, F, Alados-Arboledas, L (2016). Profiling of aerosol microphysical properties at several EARLINET/AERONET sites during the July 2012 ChArMEx/EMEP campaign. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 11(16), 7043-7066. <http://dx.doi.org/10.5194/acp-16-7043-2016>
30. Dandocsi, A, Preda, L, **Nicolae, D**, Nemuc, A (2016). Planetary boundary layer investigation from lidar measurements over Bucharest. *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS*, 1(78), 265-274, <https://www.webofscience.com/wos/alldb/full-record/WOS:000378561000024>
31. Samaras, S, **Nicolae, D**, Böckmann, C, Vasilescu, J, Biniotoglou, I, Labzovskii, L, Toanca, F, Papayannis, A (2015). Using Raman-lidar-based regularized microphysical retrievals and Aerosol Mass Spectrometer measurements for the characterization of biomass burning aerosols. *JOURNAL OF COMPUTATIONAL PHYSICS*, (299), 156-174. <http://dx.doi.org/10.1016/j.jcp.2015.06.045>
32. Labzovskii, L., Toanca, F., **Nicolae, D**. (2014). Determination of Saharan dust properties over Bucharest, Romania part 2: study cases analysis. *ROMANIAN JOURNAL OF PHYSICS*, 59(9-10), 1097-1108, <https://www.webofscience.com/wos/alldb/full-record/WOS:000346326900021>
33. Pappalardo, G. & Amodeo, Aldo & Apituley, Arnoud & Comeron, Adolfo & Freudenthaler, Volker & Linné, Holger & Ansmann, A. & Bösenberg, J. & D'Amico, G. & Mattis, Ina & Lucia, Mona & Wandinger, U. & Amiridis, Vassilis & Arboledas, Lucas & **Nicolae, Doina** & Wiegner, Matthias. (2014). EARLINET: towards an advanced sustainable European aerosol lidar network. *ATMOSPHERIC MEASUREMENT TECHNIQUES*. 7. <https://doi.org/10.5194/amt-7-2389-2014>
34. 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, 277-294, <https://doi.org/10.1016/j.scitotenv.2014.08.101>
35. Pappalardo, G., Mona, L., D'Amico, G., Wandinger, U., Adam, M., Amodeo, A., Ansmann, A., Apituley, A., Alados Arboledas, L., Balis, D., Boselli, A., Bravo-Aranda, J. A., Chaikovsky, A., Comeron, A., Cuesta, J., De Tomasi, F., Freudenthaler, V., Gausa, M., Giannakaki, E., Giehl, H., Giunta, A., Grigorov, I., Groß, S., Haeffelin, M., Hiebsch, A., Iarlori, M., Lange, D., Linné, H., Madonna, F., Mattis, I., Mamouri, R.-E., McAuliffe, M. A. P., Mitev, V., Molero, F., Navas-

- Guzman, F., **Nicolae, D.**, Papayannis, A., Perrone, M. R., Pietras, C., Pietruczuk, A., Pisani, G., Preißler, J., Pujadas, M., Rizi, V., Ruth, A. A., Schmidt, J., Schnell, F., Seifert, P., Serikov, I., Sicard, M., Simeonov, V., Spinelli, N., Stebel, K., Tesche, M., Trickl, T., Wang, X., Wagner, F., Wiegner, M., and Wilson, K. M. (2013). Four-dimensional distribution of the 2010 Eyjafjallajökull volcanic cloud over Europe observed by EARLINET. *Atmos. Chem. Phys.*, 13, 4429–4450, <https://doi.org/10.5194/acp-13-4429-2013>.
36. Nemuc, A., Vasilescu, J., Talianu, C., Belegante, L., **Nicolae, D.** (2013). Assessment of aerosol's mass concentrations from measured linear particle depolarization ratio (vertically resolved) and simulations. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 6(11), 3243-3255, <https://doi.org/10.5194/amt-6-3243-2013>
37. Osterloh, L, Böckmann, C, **Nicolae, D.**, Nemuc, A (2013). Regularized inversion of microphysical atmospheric particle parameters: Theory and application. *JOURNAL OF COMPUTATIONAL PHYSICS*, (237), 79-94. <http://dx.doi.org/10.1016/j.jcp.2012.11.040>
38. Talianu, C., Belegante, L., **Nicolae, D.**, Nemuc, A. (2012). Estimation of urban pollution level during EARLI09 campaign using real time aerosol monitors. *JOURNAL OF ENVIRONMENTAL PROTECTION AND ECOLOGY*, 13(4), 2078-2086, <https://www.webofscience.com/wos/alldb/full-record/WOS:000313926400003>
39. Belegante, L., Talianu, C., Nemuc, A. V., **Nicolae, D.** (2011). Detection of local weather events from multiwavelength lidar measurements during the EARLI09 campaign. *ROMANIAN JOURNAL OF PHYSICS*, 56(3-4), 484-494, <https://publons.com/wos-op/publon/7116775/>
40. Ionel, I., **Nicolae, D.**, Popescu, F., Talianu, C., Belegante, L., Apostol, G. (2011). Measuring air pollutants in an international Romania airport with point and open path instruments. *ROMANIAN JOURNAL OF PHYSICS*, 56(3-4), 507-519, <https://doi.org/10.1053/J.MPFOU.2006.08.005>
41. Ungureanu, I, Stefan, S, **Nicolae, D.** (2010). Investigation of the cloud cover and planetary boundary layer (PBL) characteristics using ceilometer CL-31. *ROMANIAN REPORTS IN PHYSICS*, 2(62), 396-404, <https://www.webofscience.com/wos/alldb/full-record/WOS:000278749200016>

Articole și proceedings-uri indexate

1. Vasilescu, J., Marmureanu, L., Nemuc, A., **Nicolae, D.**, Talianu, C. (2017). Seasonal variation of the aerosol chemical composition in a Romanian peri-urban area. *ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL*, 11(16), 2491-2496, <https://www.webofscience.com/wos/alldb/full-record/WOS:000419141500008>
2. Andrei, S., Toanca, F., Dandocsi, A., Belegante, L., Nemuc, A., Marmureanu, L., Vulturescu, V., Florescu, G., **Nicolae, D.** (2017). Assessment of cloud particle types in a deep convective environment using active remote sensing - a case study. *JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS*, 19(9-10), 610-616, <https://www.webofscience.com/wos/alldb/full-record/WOS:000427330800007>
3. Belegante, L., **Nicolae, D.**, Nemuc, A., Talianu, C., Derognat, C. (2014). Retrieval of the boundary layer height from active and passive remote sensors. *ACTA GEOPHYSICA*, 2(62), 276-289. <https://doi.org/10.2478/s11600-013-0167-4>
4. Nemuc, A., Stachlewska, I., Vasilescu, J., Górska, A., **Nicolae, D.**, Talianu, C. (2014). Optical properties of long-range transported volcanic ash over Romania and Poland during Eyjafjallajökull eruption in 2010. *ACTA GEOPHYSICA*, 2(62), 350-366. <https://doi.org/10.2478/s11600-013-0180-7>
5. 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, <https://www.webofscience.com/wos/alldb/full-record/WOS:000306577500013>
6. Vasilescu, J, Nemuc, A, Marmureanu, L, **Nicolae, D** (2011). Aerosol size distribution and composition near Bucharest during May 2010. *ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL*, 1(10), 121-126. <http://dx.doi.org/10.30638/eemj.2011.017>
 7. Vasilescu, J., Nemuc, A., Marmureanu, L., **Nicolae, D.** (2011). Aerosol size distribution and composition near Bucharest during May 2010. *ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL*, 10(1), 121-126, <https://doi.org/10.30638/eemj.2011.017>
 8. Stefan, S., Mihai, L., **Nicolae, D.**, Boscornea, A. (2011). Angstrom turbidity in the lower layers of the troposphere. *ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL*, 10(1), 133-138, <https://doi.org/10.30638/eemj.2011.019>
 9. Vetres, I., Ionel, I., Popescu, F., **Nicolae, D.**, Talianu, C., Dungan, L. (2010). LIDAR system implementation and development for novel Romanian systems. *OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS*, 4(8), 1074-1077, <https://publons.com/wos-op/publon/7116768/>
 10. Marinou, E., Amiridis, V., Paschou, P., Tsekeri, A., Tsikoudi, J., Voudouri, K., Gialitaki, A., Tsihla, M., Papachristopoulou, K., Kouklaki, D., Koutsoupi, I., Giannakaki, E., Kazadzis, S., Balis, D., Michailidis, K., Peletidou, G., Nemuc, A., **Nicolae, D.**, Mocnik, G., Marengo, F., Kezoudi, M., Gross, S., Wirth, M., Ewald, F., O'Connor, E., Vakkari, V., Moisseev, D., Mona, L., Papagiannopoulos, N., Rosoldi, M., Mamouri, R., Ene, D., Floutsi, A., Baars, H. (2024). ACROSS Mediterranean experiment for the cal/val of the EARTHCARE mission. *IEEE International Symposium on Geoscience and Remote Sensing IGARSS*, 1141-1143. <https://doi.org/10.1109/IGARSS53475.2024.10642456>
 11. Marinou, E., Baars, H., Mona, L., O'Connor, E., Rusli, S., Koopman, R., Fjaeraa, A.M., **Nicolae, D.** (2024). ACTRIS, EARLINET, and CLOUDNET cal/val contribution to EARTHCARE mission. *IEEE International Symposium on Geoscience and Remote Sensing IGARSS*, 3108-3110. <https://doi.org/10.1109/IGARSS53475.2024.10642457>
 12. Stachlewska, I.S., Georgoussis, G., Freudenthaler, V., Hafiz, A., Pocza, P., Louridas, A., Wang, D., Janicka, L., Siomos, N., Karasewicz, M., Fortuna, R., Kokkalis, P., Amiridis, V., Bycenkiene, S., Drzeniecka-Osiadacz, A., Belegante, L., **Nicolae, D.**, Tzeremes, G., Pleguezuelo, P.R., Schuttemeyer, D. (2024). EMORAL-Mobile Mie-Raman Lidar with Fluorescence, Polarization and Water Vapor Observational Capabilities for Satellite Cal/Val Field Campaigns. *Springer Aerospace Technology*, 239-251. https://doi.org/10.1007/978-3-031-53618-2_21
 13. Wandinger, U., **Nicolae, D.**, Pappalardo, G., Mona, L., Comerón, A. (2020). ACTRIS and its aerosol remote sensing component. *EPJ Web of Conferences*. <https://doi.org/10.1051/j.epjconf/202023705003>
 14. Chaikovskiy, A., Bril, A., Dubovik, O., Fedarenka, A., Goloub, P., Hu, Q., Lopatin, A., Lapyonok, T., Miatselskaya, N., Torres, B., Fuertes, D., Peshcharankou, V., Podvin, T., Popovici, I., Liu, D., Li, Z., Soupiona, O., Mylonaki, M., Mona, L., Giunta, A., Papagiannopoulos, N., Perrone, M.R., Romano, S., Balis, D., Siomos, N., Voudouri, K., Belegante, L., **Nicolae, D.**, Ene, D., Ajtai, N., Stefanie, H., Amiridis, V., Tsekeri, A., Bortoli, D., Costa, M.J., Mattis, I., Rocadenbosch, F., Rodriguez-Gomez, A., Sicard, M., Fernandez, A.J., Molero, F., Althausen, D., Baars, H., Guerrero Rascado, J.L., Ortiz-Amezcuca, P., Benavent Oltra, J.A., Esteban Bedoya-Velasquez, A., Roman, R., Alados-Arboledas, L., Balin, Y., Kokhanenko, G., Penner, I., Chen, B., Sverdlík, L., Milinevsky, G., Sugimoto, N., Shimizu, A., Nishizawa, T., Kudo, R., Sano, I., Yasunari, T.J., Irie, H., Takemura, T., Kim, S., Anh, N.X., Thanh, P.X., Pietruczuk, A., Stachlewska, I.S., Sannino, A., Wang, X., Boselli, A. (2020). Synergetic observations by ground-based and space lidar systems

- and AERONET sun-radiometers: a step to advanced regional monitoring of large scale aerosol changes. *EPJ Web of Conferences*, 237. <https://doi.org/10.1051/epjconf/202023702035>
15. Adam, M., **Nicolae, D.**, Belegante, L., Stachlewska, I.S., Szczepanik, D., Mylonaki, M., Papanikolaou, C.A., Siomos, N., Voudouri, K.A., Apituley, A., Alados-Arboledas, L., Bravo-Aranda, J.A., Pietruczuk, A., Chaikovski, A., Sicard, M., Munoz-Porcar, C., Mattis, I., Papagiannopoulos, N., Mona, L., Baars, H., Wandinger, U., Bortoli, D., Grigorov, I., Peshev, Z., Antonescu, B. (2020). Biomass burning measurements in EARLINET. *EPJ Web of Conferences*, 237. <https://doi.org/10.1051/j.epjconf/202023705005>
 16. Dandocsi, A., Nemuc, A., **Nicolae, D.**, Belegante, L., Cede, A., Tiefengraber, M. (2020). Aerosol field influence on the retrieval of the ozone vertical column densities from Pandora 2s measurements. *EPJ Web of Conferences*, 237. [10.1051/epjconf/202023703002](https://doi.org/10.1051/epjconf/202023703002)
 17. Wandinger, U., **Nicolae, D.**, Pappalardo, G., Mona, L., Comeron, A. (2020). ACTRIS and its aerosol remote sensing component. *EPJ Web of Conferences*, 237. <https://doi.org/10.1051/j.epjconf/202023705003>
 18. Papagiannopoulos, N., Mona, L., Amiridis, V., Binietoglou, I., D'Amico, G., Guma-Claramunt, P., Schwarz, A., Alados-Arboledas, L., Amodeo, A., Apituley, A., Baars, H., Bortoli, D., Comeron, A., Guerrero-Rascado, J., Kokkalis, P., **Nicolae, D.**, Papayannis, A., Pappalardo, G., Wandinger, U., Wiegner, M. (2018). An automatic aerosol classification for EARLINET: application and results. *EPJ Web of Conferences*. <https://doi.org/10.1051/epjconf/201817609012>
 19. Serikov, I., Linne, H., Bruggmann, B., Wörbes, L., **Nicolae, D.**, Belegante, L., Amiridis, V. (2018). ESA Airborne 3+2+2 HSRL for ALADIN/ATLID cal/val. *IEEE International Symposium on Geoscience and Remote Sensing IGARSS*, 1869-1872, <https://www.webofscience.com/wos/alladb/full-record/WOS:000451039802005>
 20. Andrei, S., Carstea, E., Marmureanu, L., Ene, D., Binietoglou, I., **Nicolae, D.**, Konsta, D., Amiridis, V., Proestakis, E. (2018). The analysis of a complex fire event using multi-spaceborne observations. *EPJ Web of Conferences*, 176. <https://doi.org/10.1051/epjconf/201817608017>
 21. Andrei, S., Toanca, F., Nemuc, A., Dandocsi, A., Belegante, L., **Nicolae, D.** (2018). Analysis of different cloud signatures using multiwavelength Raman lidar retrievals. *EPJ Web of Conferences*, 176. <https://doi.org/10.1051/epjconf/201817605034>
 22. Papagiannopoulos, N., Mona, L., Amiridis, V., Binietoglou, I., D'Amico, G., Guma-Claramunt, P., Schwarz, A., Alados-Arboledas, L., Amodeo, A., Apituley, A., Baars, H., Bortoli, D., Comeron, A., Luis Guerrero-Rascado, J., Kokkalis, P., **Nicolae, D.**, Papayannis, A., Pappalardo, G., Wandinger, U., Wiegner, M. (2018). An automatic aerosol classification for EARLINET: application and results. *EPJ Web of Conferences*, 176. <https://doi.org/10.1051/epjconf/201817609012>
 23. Proestakis, E., Amiridis, V., Kottas, M., Marinou, E., Binietoglou, I., Ansmann, A., Wandinger, U., Yorks, J., Nowottnick, E., Makhmudov, A., Papayannis, A., Pietruczuk, A., Gialitaki, A., Apituley, A., Munoz-Porcar, C., Bortoli, D., Dionisi, D., Althausen, D., Mamali, D., Balis, D., **Nicolae, D.**, Tetonii, E., Liberti, G.L., Baars, H., Stachlewska, I.S., Voudouri, K., Mona, L., Mylonaki, M., Perrone, M.R., Costa, M.J., Sicard, M., Papagiannopoulos, N., Siomos, N., Burlizzi, P., Engelmann, R., Abdullaev, S.F., Hofer, J., Pappalardo, G. (2018). EARLINET validation of CATS L2 product. *EPJ Web of Conferences*, 176. [10.1051/epjconf/201817602005](https://doi.org/10.1051/epjconf/201817602005)
 24. Pappalardo, G., Freudenthaler, V., **Nicolae, D.**, Mona, L., Belegante, L., D'Amico, G. (2016). Lidar Calibration Centre. *EPJ Web of Conferences*, 119. <https://doi.org/10.1051/epjconf/201611919003>
 25. Samaras, S., Boeckmann, C., **Nicolae, D.** (2016). Combined sphere-spheroid particle model for the retrieval of the microphysical aerosol parameters via regularized inversion of lidar data. *EPJ Web of Conferences*, 119. <https://doi.org/10.1051/epjconf/201611923022>

26. Toanca, F., Stefanie, H., Andrei, S., Barbu, N., **Nicolae, D.** (2015). Analysis of fog events at Magurele - Romania using ground based equipments and air circulation. *International Multidisciplinary Scientific GeoConference-SGEM*, 965-972, <https://www.webofscience.com/wos/alldb/full-record/WOS:000371599500123>
27. Marmureanu, L., Vasilescu, J., Nemuc, A., **Nicolae, D.**, Talianu, C. (2015). Chemical characterization of ambient aerosols in a suburban polluted area. *International Multidisciplinary Scientific GeoConference-SGEM*, 877-882, <https://www.webofscience.com/wos/alldb/full-record/WOS:000371056000113>
28. Isar, P.G., **Nicolae, D.** (2015). Pilot study of ultra-high energy Cosmic rays through their Space - Atmospheric interactions - COSAT. *EPJ Web of Conferences*, 89. <https://doi.org/10.1051/epiconf/20158904001>
29. Belegante, L., Vasilescu, J., Nicolae, D., Nemuc, A., Toanca, F. (2014). Integrated e-system for pollution and climate change monitoring in the framework of the Romanian Atmospheric Research 3D Observatory- RADO. *SIXTH INTERNATIONAL CONFERENCE ON DEVELOPMENTS IN ESYSTEMS ENGINEERING (DESE)*, 174-177, <https://doi.org/10.1109/DESE.2013.39>
30. Pappalardo, G., Amodeo, A., Ansmann, A., Apituley, A., Alados Arboledas, L., Balis, D., Boeckmann, C., Chaikovsky, A., Comeron, A., D'Amico, G., De Tomasi, F., Freudenthaler, V., Giannakaki, E., Giunta, A., Grigorov, I., Gustafsson, O., Gross, S., Haeffelin, M., Iarlori, M., Kinne, S., Linne, H., Madonna, F., Mamouri, R., Mattis, I., McAuliffe, M., Molero, F., Mona, L., Mueller, D., Mitev, V., **Nicolae, D.**, Papayannis, A., Perrone, M.R., Pietruczuk, A., Pujadas, M., Putaud, J., Ravetta, F., Rizi, V., Serikov, I., Sicard, M., Simeonov, V., Spinelli, N., Stebel, K., Trickl, T., Wandinger, U., Wang, X., Wagner, F., Wiegner, M. (2010). EARLINET observations of the Eyjafjallajokull ash plume over Europe. *Proceedings of SPIE*, 7832. <https://doi.org/10.1117/12.869016>
31. Pappalardo, G., Boesenberg, J., Amodeo, A., Ansmann, A., Apituley, A., Alados Arboledas, L., Balis, D., Boeckmann, C., Chaikovsky, A., Comeron, A., D'Amico, G., Freudenthaler, V., Grigorov, I., Hansen, G., Linne, H., Kinne, S., Mattis, I., Mona, L., Mueller, D., Mitev, V., **Nicolae, D.**, Papayannis, A., Perrone, M.R., Pietruczuk, A., Pujadas, M., Putaud, J., Ravetta, F., Rizi, V., Simeonov, V., Spinelli, N., Trickl, T., Wandinger, U., Wiegner, M. (2009). EARLINET: the European Aerosol Research Lidar Network for the Aerosol Climatology on Continental Scale. *AIP Conference Proceedings*, 1100, 189-+, <https://www.webofscience.com/wos/alldb/full-record/WOS:000265672300046>
32. Belegante, L, **Nicolae, D.**, Talianu, C, Vulturescu, V (2009). Performance estimation of Bucharest multiwavelength lidar during the EARLI09 campaign. *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS*, 4(71), 31-36, <https://www.webofscience.com/wos/alldb/full-record/WOS:000272392500004>
33. Talianu, C, **Nicolae, D.**, Cristescu, CP, Ciuciu, J, Nemuc, A, Carstea, E, Belegante, L, Ciobanu, M (2007). New algorithm for the retrieval of aerosol's optical parameters by LIDAR data inversion. *Scientific Computing in Electrical Engineering*, (11), 55-61, <https://www.webofscience.com/wos/alldb/full-record/WOS:000250107700004>
34. Talianu, C, Nemuc, A, **Nicolae, D.**, Cristescu, CP (2007). Dust event detection from lidar measurements. *UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS*, 1(69), 53-62, <https://www.webofscience.com/wos/alldb/full-record/WOS:000409839100006>
35. Mattis, I., Mona, L., Mueller, D., Pappalardo, G., Alados Arboledas, L., D'Amico, G., Amodeo, A., Apituley, A., Maria Baldasano, J., Boeckmann, C., Boesenberg, J., Chaikovsky, A., Comeron, A., Giannakaki, E., Grigorov, I., Guerrero Rascado, J.L., Gustafsson, O., Iarlori, M., Linne, H., Mitev, V., Molero Menendez, F., **Nicolae, D.**, Papayannis, A., Perez Garcia-Pando, C., Perrone,

- M.R., Pietruczuk, A., Putaud, J., Ravetta, F., Rodriguez, A., Seifert, P., Sicard, M., Simeonov, V., Sobolewski, P., Spinelli, N., Stebel, K., Stohl, A., Tesche, M., Trickl, T., Wang, X., Wiegner, M. (2007). EARLINET correlative measurements for CALIPSO. *Proceedings of SPIE*, 6750. <https://doi.org/10.1117/12.738090>
36. Amodeo, A., Mattis, I., Boeckmann, C., D'Amico, G., Mueller, D., Osterloh, L., Chaikovsky, A., Pappalardo, G., Ansmann, A., Apituley, A., Alados-Arboledas, L., Balis, D., Comeron, A., Freudenthaler, V., Mitev, V., **Nicolae, D.**, Papayannis, A., Perrone, M.R., Pietruczuk, A., Pujadas, M., Putaud, J., Ravetta, Francois, Rizi, V., Simeonov, V., Spinelli, N., Stebel, K., Stoyanov, D., Trickl, T., Wiegner, M. (2007). Optimization of lidar data processing: a goal of the EARLINET-ASOS project. *Proceedings of SPIE*, 6750. <https://doi.org/10.1117/12.738348>
37. Talianu, C., **Nicolae, D.**, Nemuc, A., Belegante, L., Carstea, E. (2007). Saharan dust event over Bucharest observed by an elastic backscatter lidar. *Proceedings of SPIE*, 6750. <https://doi.org/10.1117/12.737886>
38. Amodeo, A., Pappalardo, G., Bosenberg, J., Ansmann, A., Apituley, A., Alados-Arboledas, L., Balis, D., Bockmann, C., Chaikovsky, A., Comeron, A., Freudenthaler, V., Gustaffson, O., Hansen, G., Mitev, V., **Nicolae, D.**, Papayannis, A., Perrone, M.R., Pietruczuk, A., Pujadas, M., Putaud, J., Ravetta, F., Rizi, V., Simeonov, V., Spinelli, N., Stoyanov, D., Trickl, T., Wiegner, M. (2007). A European research infrastructure for the aerosol study on a continental scale: EARLINET-ASOS. *Proceedings of SPIE*, 6745. <https://doi.org/10.1117/12.738401>
39. Talianu, C., **Nicolae, D.**, Cristescu, C.P., Ciuciu, J., Nemuc, A., Carstea, E., Belegante, L., Ciobanu, M. (2007). New algorithm for the retrieval of aerosol's optical parameters by LIDAR data inversion. *MATHEMATICS IN INDUSTRY*, 11, 55-61, <https://www.webofscience.com/wos/alldb/full-record/WOS:000250107700004>
40. Pappalardo, G., Boesenberg, J., Amodeo, A., Ansmann, A., Apituley, A., Arboledas, L.A., Balis, D., Boeckmann, C., Chalkovsky, A., Comeron, A., Freudenthaler, V., Hansen, G., Mitev, V., **Nicolae, D.**, Papayannis, A., Perrone, M.R., Pietruczuk, A., Pujadas, M., Putaud, J., Ravetta, F., Rizi, V., Simeonov, V., Spinelli, N., Stoyanov, D., Trickl, T., Wiegner, M. (2006). EARLINET-ASOS:: programs and perspectives for the aerosol study on continental scale. *Proceedings of SPIE*, 6367. <https://doi.org/10.1117/12.690717>

Cărți și capitole de carte

1. **Nicolae, D.** (2013). Tehnici lidar pentru caracterizarea aerosolilor din atmosfera joasă (Lidar techniques for the characterization of aerosols in the low atmosphere). *Ed. Tehnopress, Iasi*, ISBN 978-973-702-973-7.
2. **Nicolae, D., Talianu, C., Belegante, L.** (2013). Introduction to atmospheric remote sensing. Lecture notes. *Ed. Tehnopress, Iasi*, ISBN 978-973-702-982-9.
3. **Nicolae, D., Talianu, C.** (2010). Chapter 1: Atmospheric lidar and retrieval of aerosol optical characteristics. Published in *Recent Advances in Atmospheric Lidars, INOE Publishing House*, ISSN 1584-5508.
4. Stefan S., **Nicolae D.**, Caian M. (2008). Secretele aerosolului atmosferic in lumina laserilor. *Ed. Ars Docendi*, ISBN 978-973-558-357-6.

Baze de date open access

1. The EARLINET publishing group 2000-2015, Group (2018). EARLINET Climatology 2000-2015. World Data Centre for Climate. http://dx.doi.org/10.1594/WDCC/EARLINET_CLIMATOLOGY_2000-2015

2. The EARLINET publishing group 2000-2015, Group (2018). EARLINET SaharanDust 2000-2015. World Data Centre for Climate. http://dx.doi.org/10.1594/WDCC/EN_SAHARANDUST_2000-2015
3. The EARLINET publishing group 2000-2015, Group (2018). EARLINET VolcanicEruption 2000-2015. World Data Centre for Climate. http://dx.doi.org/10.1594/WDCC/EN_VOLCANICERUPTION_2000-2015
4. The EARLINET publishing group 2000-2015, Group (2018). EARLINET Calipso 2000-2015. World Data Centre for Climate. http://dx.doi.org/10.1594/WDCC/EARLINET_CALIPSO_2000-2015
5. The EARLINET publishing group 2000-2015, Group (2018). EARLINET All 2000-2015. World Data Centre for Climate. http://dx.doi.org/10.1594/WDCC/EARLINET_ALL_2000-2015
6. The EARLINET publishing company (2014). EARLINET all observations (2000-2010). World Data Centre for Climate. https://doi.org/10.1594/WDCC/EN_ALL_MEASUREMENTS_2000-2010
7. The EARLINET publishing company (2014). EARLINET correlative observations for CALIPSO (2006-2010). World Data Centre for Climate. https://doi.org/10.1594/WDCC/EN_CALIPSO_2006-2010
8. The EARLINET publishing company (2014). EARLINET climatology (2000-2010). World Data Centre for Climate. https://doi.org/10.1594/WDCC/EN_CLIMATOLOGY_2000-2010
9. The EARLINET publishing company (2014). EARLINET observations related to Saharan Dust events (2000-2010). World Data Centre for Climate. https://doi.org/10.1594/WDCC/EARLINET_SAHARANDUST_2000-2010
10. The EARLINET publishing company (2014). EARLINET observations related to volcanic eruptions (2000-2010). World Data Centre for Climate. https://doi.org/10.1594/WDCC/EN_VOLCANICERUPTION_2000-2010

Data

Semnătura

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