

LISTA PUBLICAȚII – Conf. dr. Alexandru Onaca

A. ARTICOLE ȘTIINȚIFICE ȘI CAPITOLE DE CARTE

1. Popescu, R., Filhol, S., Etzelmüller, B., Vasile, M., Pleșoianu, A., Vîrghileanu, M., **Onaca, A.**, Șandric, I., Săvulescu, I., Cruceru, N., Vespremeanu-Stroe, A., Westermann, S., Sîrbu, F., Mihai, B., Nedelea, A., Gascoin, S., 2025. Permafrost distribution in the Southern Carpathians, Romania, derived from machine learning modeling. *Permafrost and Periglacial Processes*, 35, 243-261. <https://doi.org/10.1002/ppp.2232>
2. Micu, M., Vasile, M., Miron, M., **Onaca, A.**, Sîrbu, F., 2023. Deciphering complex morphology and structural connectivity of high-magnitude deep-seated landslides via airborne laser scanning: a case study in the Vrancea Seismic Region, Romanian Carpathians. *Remote Sensing*, 15, 5286.
3. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, Berzescu, O., 2023. Glacial landscape evolution during the Holocene in the Romanian Carpathians, in *European Glacial Landscapes. The Holocene*, Editor D. Palacios et al., Elsevier, p. 331-352.
4. Chiroiu, P., Onaca, A., Favillier, A., Voiculescu, M., Corona, C., Urdea, P., Stoffel, M., 2024. Snow avalanche synchronicity derived from multi-path tree-ring reconstruction in the Făgăraș Mountains (Southern Carpathians, Romania). *Quaternary Geochronology*, 79, 101474.
5. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2023, Chapter 54 - The Romanian Carpathians: glacial landforms from the Younger Dryas, in *European Glacial Landscapes. The Last Deglaciation*, Editor D. Palacios et al., Elsevier, p. 517-524
6. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2023, Chapter 36 - The Romanian Carpathians: glacial landforms during Bølling–Allerød Interstadial (14.6–12.9 ka), in *European Glacial Landscapes. The Last Deglaciation*, Editor D. Palacios et al., Elsevier, p. 347-353
7. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2023, Chapter 19 - The Romanian Carpathians: glacial landforms during deglaciation (18.9–14.6 ka), in *European Glacial Landscapes. The Last Deglaciation*, Editor D. Palacios et al., Elsevier, p. 165-173
8. Sheishah, D., Sipos, G., Barta, K., Abdelsamei, E., Hegyi, A., **Onaca, A.**, Abbas, A.M. 2023. Comparative evaluation of the material of the artificial levees: a case study along the Tisza and Maros rivers, Hungary. *Journal of Environmental Geography*, 16, 1-10.
9. Hegyi, A., Lăzărescu, V., Pisz, M., Lenkey, L., Pethe, M., **Onaca, A.**, Nica, M. 2023. Geophysical investigations within the Latus Dextrum of Porolissum Fort, northwestern Romania – the layout of a Roman Edifice. *Heritage*, 6, 829-848.
10. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2022, Chapter 57 - The Romanian Carpathians: glacial landforms from the Last Glacial Maximum (29–19 ka), in *European Glacial Landscapes. Maximum Extent of Glaciations*, Editor D. Palacios et al., Elsevier, p. 411-447
11. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2022, Chapter 38 - The Romanian Carpathians: glacial landforms prior to the Last Glacial Maximum, in *European Glacial Landscapes. Maximum Extent of Glaciations*, Editor D. Palacios et al., Elsevier, p. 277-282
12. Urdea, P., Ardelean, F., Ardelean, M., **Onaca, A.**, 2022, Chapter 14 – Glacial landscapes of the Romanian Carpathians, in *European Glacial Landscapes. Maximum Extent of Glaciations*, Editor D. Palacios et al. Elsevier, p. 109-114
13. Sheishah, D., Sipos, G., Hegyi, A., Kozák, P., Abdelsamei, E., Tóth, C., **Onaca, A.**, Páll, D.G., 2022. Assessing the structure and composition of artificial levees along the lower Tisza river (Hungary), *Geographica Pannonica*, 26, 3, 258-272.
14. Sipos, G., Blanka-Végi, V., Ardelean, F., **Onaca, A.**, Ladányi, Z., Rácz, A., Urdea, P., 2022. Human-nature relationship and public perception of environmental hazards along the Maros/Mureş river (Hungary and Romania), *Geographica Pannonica*, 26, 3, 297-307.
15. Chiroiu, P., **Onaca, A.**, Matica, A., Lopătiță, I-O., Berzescu, O., 2022. Active geomorphic hazards in the Sâmbăta Valley, Făgăraș Mountains (Romania): a tree-ring based approach. *Geographica Pannonica*, 26, 3, 284-296.
16. Nagavciuc, V., Perșoiu, A., Bădăluță, C-A., Bogdevich, O., Bănică, S., Bîrsan, M-V., Boengiu, S., **Onaca, A.**, Ionita, M., 2022. Defining a precipitation stable isotope framework in the wider Carpathian region. *Water*, 14, 2547. <https://doi.org/10.3390/w14162547>
17. **Onaca, A.**, Gachev, E., Ardelean, F., Ardelean, F., Ardelean, A., Perșoiu, A., Hegyi, A., 2022. Small is strong: Post LIA resilience of Europe's Southernmost glaciers assessed by geophysical methods. *Catena*, 213, 106143. <https://doi.org/10.1016/j.catena.2022.106143>

18. Hegyi, A., Diaconescu, D., Urdea, P., Sarris, A., Pisz, M., **Onaca, A.**, 2021. Using Geophysics to Characterize a Prehistoric Burial Mound in Romania. *Remote Sensing*, 13, 842. <https://doi.org/10.3390/rs13050842>
19. Perșoiu, A., Buzjak, N., **Onaca, A.**, Pennos, C., Sotiriadis, Y., Ionita, M., Zachariadis, S., Styllas, M., Kosutnik, J., Hegyi, A., Butorac, V. 2021. Record summer rains in 2019 led to massive loss of surface and cave ice in SE Europe. *The Cryosphere*, 15, 2383-2399. <https://doi.org/10.5194/tc-15-2383-2021>
20. Mreyen, A.-S., Cuachie, L., Micu, M., **Onaca, A.**, H.-B., Havenith, 2021. Multiple geophysical investigations to characterize massive slope failure deposits: application to the Balta rockslide, Carpathians. *Geophysical Journal International*, 225, 1032-1047. doi: 10.1093/gji/ggab028
21. Hegyi A, Sarris A, Curta F, Floca C, Forțiu S, Urdea P, **Onaca A**, Timofte F, Pisz M, Timuț S, Nica M, Maciulschi D, Stavilă A., 2020. Deserted Medieval Village Reconstruction Using Applied Geosciences. *Remote Sensing* 12(12):1975. <https://doi.org/10.3390/rs12121975>
22. Ardelean, F., **Onaca, A.**, Chețan, M., Dornik, A., Georgievski, G., Hagemann, S., Timofte, F., Berzescu, O., 2020. Assessment of Spatio-Temporal Landscape Changes from VHR Images in Three Different Permafrost Areas in the Western Russian Arctic. *Remote Sensing*, 12, 3999. DOI: 10.3390/rs12233999
23. Chețan, M., Dornik, A., Ardelean , F., Georgievski, G., Hagemann, S., Romanovsky, V., **Onaca, A.**, Drozdov, D., 2020, 35 Years of Vegetation and Lake Dynamics in the Pechora Catchment, Russian European Arctic, *Remote Sensing*, 12 (11), 1863. <https://doi.org/10.3390/rs12111863>
24. Magori, B., Urdea, P., **Onaca, A.**, Ardelean, F., 2020. Distribution and characteristics of rock glaciers in the Balkan Peninsula. *Geografiska Annaler: Series A, Physical Geography*, 102:4, 354-375. DOI: 10.1080/04353676.2020.1809905
25. **Onaca, A.**, Ardelean, F., Ardelean, A., Magori, B., Sîrbu, F., Voiculescu, M., Gachev, E., 2020. Assessment of permafrost conditions in the highest mountains of the Balkan Peninsula. *Catena*, 185, 104288. <https://doi.org/10.1016/j.catena.2019.104288>
26. Hegyi, A., Urdea, P., Floca, C., Ardelean, A., **Onaca, A.**, 2019. Mapping the subsurface structures of a lost medieval village in South-Western Romania, by combining conventional geophysical methods. *Archaeological Prospection*, 26(1), 21-32. DOI: 10.1002/arp.1720
27. Șerban, R-D., **Onaca, A.**, Șerban, M., Urdea, P., 2019. Block stream characteristics in Southern Carpathians (Romania). *Catena*, 178, 20-31. <https://doi.org/10.1016/j.catena.2019.03.003>
28. **Onaca, A.**, Urdea, P., Ardelean, A.C., Șerban, R., Ardelean, F., 2017. *Present-day periglacial processes in the alpine zone*. In Rădoane, M., Vespremeanu-Stroe, A. (Eds.), *Landform dynamics and evolution in Romania*, Springer, 147-176, doi: 10.1007/978-3-319-32589-7_7.
29. Popescu, R., **Onaca, A.**, Urdea, P., Vespremeanu-Stroe, A., 2017. *Spatial distribution and main characteristics of alpine permafrost from Southern Carpathians*, In Rădoane, M., Vespremeanu-Stroe, A. (Eds.), *Landform dynamics and evolution in Romania*, Springer, 117-146, doi: 10.1007/978-3-319-32589-7_6.
30. **Onaca, A.**, Ardelean, F., Urdea, P., Magori, B., 2017. Southern Carpathian rock glaciers: inventory, distribution and environmental controlling factors, *Geomorphology*. 293, 391-404. doi.org/10.1016/j.geomorph.2016.03.03.
31. Mreyen A-S., Micu, M., **Onaca, A.**, Cerfontaine, P., Havenith, H-B., 2017, Integrated geological-geophysical models of unstable slopes in seismic areas, In: *The 4th World Landslide Forum*, Ed. M. Mikos, Springer Nature. 269-278. DOI 10.1007/978-3-319-53498-5_31
32. Popescu, R., Vespremeanu-Stroe, A., **Onaca, A.**, Vasile, M., Cruceru, N., Pop, O., 2017. Low-altitude permafrost research in an overcooled talus slope-rock glacier system in the Romanian Carpathians (Detunata Goală, Apuseni Mountains), *Geomorphology*, 295, 840-854. <https://doi.org/10.1016/j.geomorph.2017.07.029>
33. Ardelean, A., **Onaca, A.**, Urdea, P., Sărăsan, A., 2017. Quantifying postglacial sediment storage and denudation rates in a small alpine catchment of the Făgăraș Mountains (Romania), *Science of the Total Environment*, 599-600, 1756-1767. <http://dx.doi.org/10.1016/j.scitotenv.2017.05.131>
30. Magori, B., **Onaca, A.**, Urdea, P., 2017. The influence of contributing area parameters on the size of rock glaciers in the Southern Carpathian Mountains. *Forum geographic. S.C.G.P.M.*, XVI, 1, 5-11. <http://dx.doi.org/10.5775/fq.2017.101.i>
35. Necsoiu, M., **Onaca, A.**, Wigginton, S., Urdea, P., 2016. Rock glacier dynamics in Southern Carpathian Mountains from high-resolution optical and multi-temporal SAR satellite imagery, *Remote Sensing of Environment*, 177, 21-36. doi:10.1016/j.rse.2016.02.025
36. Voiculescu, M., **Onaca, A.**, Chiroiu, P., 2016. Dendrogeomorphic reconstruction of past snow avalanche events and identification of triggering weather conditions in the Bâlea glacial valley – Făgăraș massif

- (Southern Carpathians), Romanian Carpathians. *Quaternary International*, **415**, 286-302. doi:[10.1016/j.quaint.2015.11.115](https://doi.org/10.1016/j.quaint.2015.11.115)
37. **Onaca, A.**, Ardelean, A.C., Urdea, P., Ardelean, F., Sărăşan, A., 2016. Genetic typologies of talus deposits derived from GPR measurements in the alpine environment of Făgăraş Mountains, *Carpathian Journal of Earth and Environmental Sciences*, **11**, 2, 609-616.
38. Chiroiu, P., Ardelean, A., **Onaca, A.**, Voiculescu, M., Ardelean, F., 2016. Assessing the antrophogenic impact on geomorphic processes using tree-rings: a case study in the Făgăraş Mountains (Romanian Carpathians). *Carpathian Journal of Earth and Environmental Sciences*, **11**, 1, 27-36.
39. Necsoiu, M., Mîndrescu, M., **Onaca, A.**, Wigginton, S., 2016. Recent morphodynamics of alpine lakes in Southern Carpathians Mountains using high-resolution optical imagery. *Quaternary International*, **415**, 164-174. doi:[10.1016/j.quaint.2015.12.032](https://doi.org/10.1016/j.quaint.2015.12.032)
40. Timofte, F., **Onaca, A.**, Urdea, P., Pravelz, T., 2016. The evolution of Mureş channel in the lowland section between Lipova and Nădlac (in the last 150 years), assessed by GIS analysis. *Carpathian Journal of Earth and Environmental Sciences*, **11**, 2, 319-330.
41. Popescu, M., Ţerban, R.D., Urdea, P., **Onaca, A.**, 2016. Conventional geophysical surveys for landslide investigations: two case studies from Romania. *Carpathian Journal of Earth and Environmental Sciences*, **11**, 1, 281-292.
42. Timofte, F., **Onaca, A.**, 2016, Paleo discharge of Mureş River in the lowland area, *Ecoterra journal of environmental research and protection*, **13** (1), 7-13.
43. Chiroiu, P., Stoffel, M., Onaca A., Urdea, P., 2015, Testing dendrogeomorphic approaches and thresholds to reconstruct snow avalanche activity in the Făgăraş Mountains (Romanian Carpathians), *Quaternary Geochronology*, **27**, 1–10. <http://dx.doi.org/10.1016/j.quageo.2014.11.001>
44. **Onaca, A.**, Ardelean, A. C., Urdea, P., Ardelean, F., Ţîrbu, F., 2015, Detection of mountain permafrost by combining conventional geophysical methods and thermal monitoring in the Retezat Mountains, Romania, *Cold Regions Science and Technology*, **119**, 111-123. <http://dx.doi.org/10.1016/j.coldregions.2015.08.001>
45. Popescu, R., Vespremeanu-Stroe, A., **Onaca, A.**, Cruceru, N., 2015. Permafrost in the granitic massifs of Southern Carpathians (Parâng Mountains). *Zeitschrift für Geomorphologie*, **59**, 1, 1-20. doi.org/10.1127/0372-8854/2014/0145.
46. Ţerban, R.D., Sipos, G., Popescu, M., Urdea, P., **Onaca, A.**, Ladányi, Z., 2015, Comparative grain-size measurements for validating sampling and pretreatment techniques in terms of solifluction landforms, Southern Carpathians, Romania, *Journal of Environmental Geography*, **8**, 1–2, 39–47. DOI: [10.1515/jengeo-2015-0005](https://doi.org/10.1515/jengeo-2015-0005)
47. Ardelean, A.C., **Onaca, A.**, Urdea, P., Ţerban, R.D., Ţîrbu, F., 2015. A first estimate of permafrost distribution from BTS measurements in the Romanian Carpathians (Retezat Mountains). *Géomorphologie: Relief, Processus, Environment*, **21** (4), 297-312. DOI: [10.4000/géomorphologie.11131](https://doi.org/10.4000/géomorphologie.11131)
48. Ţerban, R.D., **Onaca, A.**, Urdea, P., Popescu, M., 2015, Multivariate prediction model for block streams occurrence in Retezat Mountains (Southern Carpathians), *Carpathian Journal of Earth and Environmental Sciences*, **10**, 1, 113-122
49. **Onaca, A.**, Magori, B., Urdea, P., Chiroiu, P., 2015, Near surface thermal characteristics of alpine steep rockwalls in the Retezat Mountains, *Forum geografic. S.C.G.P.M.*, **XIV**, 2, 124-133. <http://dx.doi.org/10.5775/fq.2067-4635.2015.091.d>
50. Voiculescu, M., **Onaca, A.**, 2014, Spatio-temporal reconstruction of snow avalanche activity using dendrogeomorphological method in Bucegi Mountains-Romanian Carpathians, *Cold Region Science and Technology*, **104-105**, 63-75. <http://dx.doi.org/10.1016/j.coldregions.2014.04.005>
51. **Onaca, A.**, Urdea, P., Ardelean, A.C., 2013, Internal structure and permafrost characteristics of the rock glaciers of Southern Carpathians (Romania) assessed by geoelectrical soundings and thermal monitoring, *Geografiska Annaler, Series A: Physical Geography*, **95**, 3, 249-266. DOI: [10.1111/geoa.12014](https://doi.org/10.1111/geoa.12014)
52. Voiculescu, M., **Onaca, A.**, 2013, Snow avalanche assessment in the Sinaia ski area (Bucegi Mountains, Southern Carpathians) using the dendrogeomorphology method, *Area*, **45** (1), 109-122. doi: [10.1111/area.12003](https://doi.org/10.1111/area.12003). doi: [10.1111/area.12003](https://doi.org/10.1111/area.12003)
53. **Onaca, A.**, Urdea, P., Ardelean, A., Ţerban, R., 2013, Assesment of internal structure of periglacial landforms from Southern Carpathians (Romania) using DC resistivity tomography, *Carpathian Journal of Earth and Environmental Sciences*, **8** (2), 113-122.
54. Katona, O., Sipos, G., **Onaca, A.**, Ardelean F., 2012, Reconstruction of palaeo-hydrology and fluvial architecture at the Oroszáha palaeo-channel of river Maros, Hungary, *Journal of Environmental Geography*, **5** (1-2): 29-38.

55. Voiculescu, M., Ardelean, F., Onaca, A., Török-Oance, M., 2011, Analysis of snow avalanche potential in Bâlea glacial area - Făgăraș massif, (Southern Carpathians - Romanian Carpathians), *Zeitschrift für Geomorphologie*, Stuttgart, 55 (3): 291-316, [doi:10.1127/0372-8854/2011/0054](https://doi.org/10.1127/0372-8854/2011/0054).
56. Voiculescu, M., Popescu, F., Török-Oance, M., Olaru, M., Onaca, A., 2011, Features of the ski area from the Romanian Banat, *Forum geografic. S.C.G.P.M.*, 10, 1 / June, 58-69.
57. Urdea, P., Onaca, A., Ardelean, F., Ardelean, M., 2011, New Evidence on the Quaternary Glaciation on the Romanian Carpathians (Chapter 24) in *Developments in Quaternary Science*, vol. 15 (Quaternary Glaciations - Extent and Chronology), ed.: J. Ehlers, P.L. Gibbard, P.D. Hughes, Elsevier, 305-323, [doi:10.1016/B978-0-444-53447-7.00024-6](https://doi.org/10.1016/B978-0-444-53447-7.00024-6);
58. Ardelean, F., Török-Oance, M., Urdea, P., Onaca, A., 2011, Application of object based image analysis for glacial cirques detection. Case study: the Tarcu Mountains (Southern Carpathians). *Forum geografic. S.C.G.P.M.*, 10(1): 20-26, [doi:10.5775/fg.2067-4635.2011.007.i](https://doi.org/10.5775/fg.2067-4635.2011.007.i)
59. Török-Oance, M., Ardelean, F., Onaca, A., 2009. The semiautomated Identification of the planation surfaces on the basis of the digital terrain model. Case study: The Mehedinți Mountains (Southern Carpathians), *Forum geografic. S.C.G.P.M.*, 8: 5-13.
60. Niebieszczański, J., Pető, A., Serlegi, G., Hildebrandt-Janke, I., Galas, J., Sipos, G., Gergely Pál, D., Onaca, A., Spychaliski, W., Jaeger, M., Kulcsár, G., Taylor, N., Márkus, G., 2018. Geoarchaeological and non-invasive investigations of the site and its surroundings, in: Jaeger, M., Kulcsár, G., Taylor, N., Staniuk (Eds.) *Kakucs-Turjan, a Middle Bronze Age multi-layered fortified settlement in Central Hungary*, Studien zur Archäologie in Ostmitteleuropa, Totem, 43-73.
61. Şerban, R.D., Onaca, A., Urdea, P., Popescu, M., 2015. Generation and accuracy assessment of Digital Elevation Models in mountain area, *Geographica Timisiensis*, 24(1).
62. Voiculescu, M., Onaca, A., Chiroiu, P., 2013, Dynamique forestière et impact des avalanches par la méthode dendrochronologique. Vallée glaciaire Bâlea, Massif de Făgăraș (Carpates Meridionales, Roumanie), in: A. Decaulne (ed.), *Arbres & dynamiques, Maison des Sciences de l'Homme*, Clermont-Ferrand, 89-102.
63. Urdea, P., Sipos, G., Kiss, T., Onaca, A., 2012, The Maros/Mureş, in: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureş River*, Editura Universității de Vest din Timișoara, 9-33 / 159-167;
64. Kiss, T., Urdea, P., Sipos, G., Sümeghy, B., Katona, O., Tóth, O., Onaca, A., Ardelean, F., Timofte, F., Ardelean, C., 2012, The past of the river, in: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureş River*, Editura Universității de Vest din Timișoara, 33-64 / 167-178;
65. Sipos, G., Právetz, T., Katona, O., Ardelean, F., Timofte, F., Onaca, A., Kiss, T., Kovács, F., Tobak, Z., 2012, The ever changing river, in: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureş River*, Editura Universității de Vest din Timișoara, 65-106 / 179-192;
66. Blanka, V., Mezősi, G., Sipos, G., van Leeuwen, B., Urdea, P., Onaca, A., 2012, Climatic perspectives in: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureş River*, Editura Universității de Vest din Timișoara.
67. Voiculescu, M., Popescu, F., Onaca, A., Török-Oance M., 2011, Ski activity in western part of Southern Carpathians. Case study: Straja ski area, *Analele Universității din Oradea – Seria Geografie*, XXI, 2 (December), 159-171.
68. Voiculescu, M., Onaca, A., Milian, N., Ardelean, F., Török-Oance, M., Stăncescu, M., 2010, Analysis of Snow Avalanche from Mars, 07, 2007 within the Călțun-Negoiu Area, in the Făgăraș Massif (Southern Carpathians), *Analele Universității din Oradea – Seria Geografie*, XX, 1 (June), 22-33.
69. Urdea, P., Ardelean, M., Ardelean, F., Onaca, A., 2008. An outlook on periglacial of the Romanian Carpathians, *Analele Universității de Vest din Timișoara, GEOGRAFIE*, 18, 5-22.
70. Urdea, P., Ardelean, M., Onaca, A., Ardelean, F., Török-Oance, M., 2008. Application of DC resistivity tomography in the alpine area of Southern Carpathians (Romania). In: Kane DL., Hinkel, K. (eds). *Proceedings of the ninth international conference on permafrost*. Fairbanks, Institute of Northern Engineering, 323-335.
71. Urdea, P., Onaca, A., Ardelean, F., 2007. Application of DC resistivity tomography on glacial deposits in the Bâlea-Valea Doamnei area, Făgăraș Mountains, *Analele Universității de Vest din Timișoara, GEOGRAFIE*, 17, 5-22.

B. CĂRTI

1. Ardelean, F., Hegyi, A., Mocioacă, E., Onaca, A., Timofte, F., Urdea, P., 2019. Current status and new challenges in geomorphological research, Proceedings of the 35th Romanian Symposium of Geomorphology. Editura Universității de Vest, Timișoara, 83 pp.

2. **Onaca, A.**, 2017. Periglacial processes and landforms in Southern Carpathians. A geomorphological and geophysical approach (in Romanian). Editura Universității de Vest, Timișoara, 264 pp (revised version of the PhD dissertation).

12.02.2025

Alexandru Onaca