

PERSONAL  
INFORMATION

## ION CATALIN PETRITAN

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**ORCID:** <https://orcid.org/0000-0001-6037-1717>;

Web of Science ResearcherID: I-7560-2019

Google Scholar:

<https://scholar.google.com/citations?user=13RltGwAAAAJ&hl=en&oi=ao>

ResearchGate: <https://www.researchgate.net/profile/Ion-Petritan>

Sex Male | Date of birth 24/01/1976 | Nationality Romanian Marital Status Married (1 child)

## WORK EXPERIENCE

10/2020-present

**Professor****Transilvania University of Brasov, Brasov (Romania)****Faculty of Silviculture and Forest Engineering**

High Education Teaching in Biostatistics, Data analysis and Research in Forest Ecology, Biodiversity, Forest soils, deadwood, virgin forests, climate change effect on forest

High Education and Research

08/2013-03/2015

**Postdoc****Swiss Federal Institute for Forest, Snow and Landscape Research WSL, Birmensdorf (Switzerland)**

Person in charge of the Project: "MODIST / Mortality and disturbances: dendroecological analyses of the main processes shaping the structure of a mixed Abies-Fagus old-growth forest in the southern Carpathians, Romania", Swiss Research Fellowship (Sciex-NMSch)

Research in dendroecology, spatial statistics, forest ecology

10/2012-09/2020

**Associate professor****Transilvania University of Brasov, Brasov (Romania)****Faculty of Silviculture and Forest Engineering**

High Education Teaching in Biostatistics, Data analysis and Research in Forest Ecology, Biodiversity, virgin forests, climate change effect on forests

High Education and Research

07/2011-09/2012

**Lecturer****Transilvania University of Brasov, Brasov (Romania)****Faculty of Silviculture and Forest Engineering**

Teaching seminars at Biostatistics Discipline, Research in Forest Science

High Education and Research

01/2007-06/2010

**Research Assistant**

**Georg August University, Göttingen (Germany)**  
**Faculty of Forest Sciences and Forest Ecology**

Pearson in charge of the Project: "Influence of different cutting types (clear, strip and target diameter cutting) on growth of planted beech and Douglas fir saplings", financed by DFG (German Research Foundation)

Research in forest ecology, forest regeneration

03/2005-09/2005

**Research Assistant**

**Georg August University, Göttingen (Germany)**  
**Faculty of Forest Sciences and Forest Ecology**

Research in forest ecology

03/2000-07/2011

**Lecturer assistant**

**Transilvania University of Brasov, Brasov (Romania)**  
**Faculty of Silviculture and Forest Engineering**

Teaching seminars at Biostatistics Discipline

## EDUCATION AND TRAINING

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2007 -2011

**PhD Diploma in Forest Science**

**Faculty of Forest Science and Forest Ecology,**  
**Georg August University, Göttingen (Germany)**

Grade: **Magna Cum Laude**; Supervised by Prof. dr. Burghard von Luepke

Thesis title: "Influence of different cutting types (clear, strip and target diameter cutting) on growth of planted beech and Douglas-fir saplings"

2001-2008

**PhD in Agricultural and Forest Sciences**

**Faculty of Silviculture and Forest Engineering**  
**Transilvania University Brasov (Romania)**

Grade: **Very Good**; Supervised by Prof. dr. Ioan Clinciu

Thesis title: "Contributions regarding the statistical study of morphometrical and morphohydrological parameters for small, predominantly forested watersheds"

2000 -2002

**MSc in "Probabilities and mathematical statistics"**

**Faculty of Sciences, Transilvania University Brasov (Romania)**

1999-2000

**MSc in Forest Ecosystems Management**

**Faculty of Silviculture and Forest Engineering**  
**Transilvania University Brasov (Romania)**

1995-2000

**Diploma in Mathematics** (equivalent to BSc Honours),

**Faculty of Sciences, Transilvania University Brasov, Romania**

1994-1999

**Diploma in Forestry** (equivalent to BSc Honours)

**Faculty of Silviculture and Forest Engineering**  
**Transilvania University Brasov (Romania)**

## PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	C1	C1	C2
German	A1	A 1	A 2	A 2	A 1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

- Communication skills**
- Excellent contact skills with students through my experience as Professor
  - Good communication skills developed through experience as teacher, researcher and manager.
  - Capacity of teamwork gained through my scientific collaborations with research groups from Romania and abroad (Germany, Spain, Switzerland, Check Republic, France).

- Organisational / managerial skills**
- Good leadership skills gained as Head of Forest Engineering, Forest Management and Terrestrial Measurements Research Center of Transilvania University, as PhD supervisor and leader of research projects.
  - Good skills in writing fundamental and applied research project proposals and implementing research grants:
    - 2021-2025: Responsible for Romanian partner institution of Horizon H-2020, grant: HoliSoils “*Holistic management practices, modelling and monitoring for European Forest Soils*”, 185.000 Euro
    - 2021-2023: Project Director of DEWOOD “*Understanding biotic and abiotic controls of woody debris decomposition and its contribution to carbon budgets in old-growth forests*” project (UEFISCDI- Exploratory research projects, ID: PN-III-P4-ID-PCE-2020-2696), 1198032 lei
    - 2019-2021: Researcher - Project leader: “*Impact of insect herbivores on biogeochemical cycling across pristine forests in Romania*”, subpart of project (EU under H2020-EU.1.1., ERC consolidator grant ID: 682707 (ECOHERB) developed by PI dr. Daniel Metcalfe, University Lund, Sweden;
    - 2015-2017: Coordinator of TreeMoris “*Dynamics of multi-species tree mortality in Romania and its impact on the soil microbiome and soil nutrients*” project (UEFISCDI – Young research team, ID: PN-II-RU-TE-2014-4-0791), 550000 lei
    - 2013-2015: Project leader of the Project: “*MODIST / Mortality and disturbances: dendroecological analyses of the main processes shaping the structure of a mixed Abies-Fagus old-growth forest in the southern Carpathians, Romania*”, Swiss Research Fellowship (Sciex-NMSch), Forest, Snow and Landscape Institute, WSL, Birmensdorf, Switzerland;

ADDITIONAL  
INFORMATION

## Memberships:

Association for tree-ring research – ATR (since 2017)

## Citations:

633 (580 without self-citations) after Web of Science (reference 2022-12-15)

h-index: 12 after Web of Science (reference: 2022-12-15)

944 citations after Google Scholar (reference: 2022-12-15)

h-index: 14 after Google Scholar (reference: 2022-12-15)

[https://scholar.google.com/citations?hl=en&user=13RItGwAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=13RItGwAAAAJ&view_op=list_works&sortby=pubdate)

## Awards/Prizes:

**2016 "Alexandru Dissescu Foundation" PRIZE** for a set of papers published in the period 209-2016.

Editor/reviewer at  
international journals**Editor:**

Annals of Forest Research

Bucovina forestieră

*Guest Editor:* Forests

**Reviewer at the following journals:** Forest Ecology and Management (12), Journal of vegetation Science, Ecological informatics (3), Remote Sensing (8), Sustainability, Mathematical and Computational Forestry and Natural Resource Science, Environmental and Experimental Botany, Plant Ecology and Diversity, Annals of Forest Research (2), European Journal of Forest Research (2), IForest (9), Land, Journal of Ecology, Forests (14), The European Zoological Journal, Journal of Tropical Forest Science, Seefor-south- east European Forestry (2), Ecology and Evolution, Forestry (2), Journal of Environmental Management, Dendrobiology, Water, Scientific Reports (2), Journal of Plant Ecology, Plant Biosystems, Mountains Research and Development, New Forest (2), Forest Science, ISPRS International Journal of Geo-information, Journal of Forestry Research (3), Journal of Agricultural Science and Technology, Journal of Forest Science, Ecological Engineering, Turkish Journal of Agriculture and Forestry, Scandinavian Journal of Forest Research.

**I declare on my own responsibility that the data presented are real.**

Data

12.09.2024

Professor,

PhD Ion Cătălin Petrițan



## List of Publications

### PAPERS IN ISI JOURNALS (WEB OF SCIENCE)

1. Hereş, A.M., Polanco-Martínez, J.M., **Petritan, I.C.**, Petritan, A.M. and Yuste, J.C., 2022. The stationary and non-stationary character of the silver fir, black pine and Scots pine tree-growth-climate relationships. *Agricultural and Forest Meteorology*, 325, p.109146.
2. Dorado-Liñán, I., Ayarzagüena, B., Babst, F., Xu, G., Gil, L., Battipaglia, G., Buras, A., Čada, V., Camarero, J.J., Cavin, L., ...**Petritan I.C.**, ... and Claessens, H., 2022. Jet stream position explains regional anomalies in European beech forest productivity and tree growth. *Nature communications*, 13(1), pp.1-10.
3. Martinez del Castillo, E., Zang, C.S., Buras, A., Hacket-Pain, A., Esper, J., Serrano-Notivoli, R., Hartl, C., Weigel, R., Klesse, S., ...**Petritan I.C.**, ..., Resco de Dios, V. and Scharnweber, T., 2022. Climate-change-driven growth decline of European beech forests. *Communications biology*, 5(1), pp.1-9.
4. Annighöfer, P., Mund, M., Seidel, D., Ammer, C., Ameztegui, A., Balandier, P., Bebre, I., Coll, L., Collet, C., Hamm, T. and Huth, F., ...**Petritan I.C.**,..., 2022. Examination of aboveground attributes to predict belowground biomass of young trees. *Forest Ecology and Management*, 505, p.119942.
5. Bălăcenoiu, F., Simon, D.C., Neţoiu, C., Toma, D. and **Petriţan, I.C.**, 2021. The Seasonal Population Dynamics of *Corythucha arcuata* (Say, 1832)(Hemiptera: Tingidae) and the Relationship between Meteorological Factors and the Diurnal Flight Intensity of the Adults in Romanian Oak Forests. *Forests*, 12(12), p.1774.
6. Bălăcenoiu, F., Neţoiu, C., Tomescu, R., Simon, D.C., Buzatu, A., Toma, D. and **Petriţan, I.C.**, 2021. Chemical control of *Corythucha arcuata* (Say, 1832), an invasive alien species, in oak forests. *Forests*, 12(6), p.770.
7. Hereş, A.M., Bragă, C., Petritan, A.M., **Petritan, I.C.** and Curiel Yuste, J., 2021. Spatial variability of soil respiration (Rs) and its controls are subjected to strong seasonality in an even-aged European beech (*Fagus sylvatica* L.) stand. *European Journal of Soil Science*, 72(5), pp.1988-2005.
8. Petritan, A.M., **Petritan, I.C.**, Hevia, A., Walentowski, H., Bouriaud, O. and Sánchez-Salguero, R., 2021. Climate warming predispose sessile oak forests to drought-induced tree mortality regardless of management legacies. *Forest Ecology and Management*, 491, p.119097.
9. Hai, N.H., Erfanifard, Y., Bui, V.B., Mai, T.H., Petritan, A.M. and **Petritan, I.C.**, 2021. Topographic effects on the spatial species associations in diverse heterogeneous tropical evergreen forests. *Sustainability*, 13(5), p.2468.
10. Hereş, A.M., **Petritan, I.C.**, Bigler, C., Curtu, A.L., Petrea, Ş., Petritan, A.M., Polanco-Martínez, J.M., Rigling, A. and Yuste, J.C., 2021. Legacies of past forest management determine current responses to severe drought events of conifer species in the Romanian Carpathians. *Science of The Total Environment*, 751, p.141851.
11. Hai, N.H., Tan, N.T., Bao, T.Q., Petritan, A.M., Mai, T.H., Hien, C.T.T., Anh, P.T., Hung, V.T. and **Petritan, I.C.**, 2020. Changes in community composition of tropical evergreen forests during succession in Ta Dung National Park, Central Highlands of Vietnam. *Forests*, 11(12), p.1358.
12. Spînu, A.P., **Petriţan, I.C.**, Mikoláš, M., Janda, P., Vostarek, O., Čada, V. and Svoboda, M., 2020. Moderate-to High-Severity Disturbances Shaped the Structure of Primary *Picea Abies* (L.) Karst. Forest in the Southern Carpathians. *Forests*, 11(12), p.1315.
13. Dutcă, I., Zianis, D., **Petriţan, I.C.**, Bragă, C.I., Ştefan, G., Yuste, J.C. and Petriţan, A.M., 2020. Allometric biomass models for European beech and silver fir: testing approaches to minimize the demand for site-specific biomass observations. *Forests*, 11(11), p.1136.
14. Ionescu, D.T., Hodor, C.V. and **Petritan, I.C.**, 2020. Artificial wetlands as breeding habitats for colonial waterbirds within Central Romania. *Diversity*, 12(10), p.371.

15. Hai, N.H., Erfanifard, Y., Bao, T.Q., Petritan, A.M., Mai, T.H. and **Petritan, I.C.**, 2020. Phylogenetic Community and Nearest Neighbor Structure of Disturbed Tropical Rain Forests Encroached by *Streblus macrophyllus*. *Forests*, 11(7), p.722.
16. **Petritan, I.C.**, Mihăilă, V.V., Bragă, C.I., Boura, M., Vasile, D. and Petritan, A.M., 2020. Litterfall production and leaf area index in a virgin european beech (*Fagus sylvatica* L.)–Silver fir (*Abies alba* mill.) forest. *Dendrobiology*, 83
17. Gut, U., Árvai, M., Bijak, S., Camarero, J.J., Cedro, A., Cruz-García, R., Garamszegi, B., Hacket-Pain, A., Hevia, A., Huang, W., **Petritan I.C.**, and Isaac-Renton, M., 2019. No systematic effects of sampling direction on climate-growth relationships in a large-scale, multi-species tree-ring data set. *Dendrochronologia*, 57, p.125624.
18. Yuste J.C., Flores-Rentería D., García-Angulo D., Hereş A.M., Bragă C., Petritan A.M., **Petritan I.C.** 2019. Cascading effects associated with climate-change-induced conifer mortality in mountain temperate forests result in hot-spots of soil CO2 emissions. *Soil Biology and Biochemistry*, 133: 50-59.
19. Nguyen H., Erfanifard Y., Pham V., Le X., **Petritan I.C.** 2018. Spatial Association and Diversity of Dominant Tree Species in Tropical Rainforest, Vietnam. *Forests* 9(10): 615.
20. Nguyen H.H., Erfanifard Y., **Petritan I.C.** 2018. Nearest Neighborhood Characteristics of a Tropical Mixed Broadleaved Forest Stand. *Forests* 9(1): 33.
21. Nguyen H.H., **Petritan I.C.**, Burslem D.F. 2018. High frequency of positive interspecific interactions revealed by individual species–area relationships for tree species in a tropical evergreen forest. *Plant Ecology & Diversity*, 1-10.
22. Dölle M., Petritan A.M., Biris I.A., **Petritan I.C.** 2017. Relations between tree canopy composition and understorey vegetation in a European beech-sessile oak old growth forest in Western Romania. *Biologia* 72(12): 1422-1430.
23. Annighöfer P., Petritan A.M., **Petritan I.C.**, Ammer C. 2017. Disentangling juvenile growth strategies of three shade-tolerant temperate forest tree species responding to a light gradient. *Forest Ecology and Management* 391: 115-126.
24. Strimbu B.M., **Petritan I.C.**, Montes C., Biris I.A. 2017. An assessment of the O-ring methodology using virgin stands of mixed European beech–Sessile oak. *Forest Ecology and Management* 384: 378-388.
25. Petritan A.M., Bouriaud O., Frank D.C., **Petritan I.C.** 2017. Dendroecological reconstruction of disturbance history of an old-growth mixed sessile oak–beech forest. *Journal of Vegetation Science* 28(1): 117-127.
26. Vasile D., Petritan A.M., Tudose N.C., Toiu F.L., Scarlatescu V., **Petritan I.C.** 2017. Structure and Spatial Distribution of Dead Wood in Two Temperate Old-Growth Mixed European Beech Forests. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 45(2): 639-645.
27. Dinulica F., Marcu V., Borz S.A., Vasilescu M.M., **Petritan I.C.** 2016. Wind contribution to yearly silver fir (*Abies alba* Mill.) compression wood development in the Romanian Carpathians. *iForest-Biogeosciences and Forestry* 9(6): 927.
28. **Petritan I.C.**, Commarmot B., Hobi M.L., Petritan A.M., Bigler C., Abrudan I.V., Rigling A. 2015. Structural patterns of beech and silver fir suggest stability and resilience of the virgin forest Sinca in the Southern Carpathians, Romania. *Forest Ecology and Management* 356: 184-195.
29. Dinulică F., Albu C.T., Borz S.A., Vasilescu M.M., Petritan I.C. 2015. Specific structural indexes for resonance Norway spruce wood used for violin manufacturing. *BioResources* 10(4): 7525-7543.
30. Clinciu I., Petriţan I.C., Niţă M.D. 2015. Magnitude of damage events on hydrotechnical torrent control structures. *Environmental Engineering and Management Journal* 14(1): 57-71.
31. **Petritan I.C.**, Marzano R., Petritan A.M., Lingua E. 2014. Overstorey succession in a mixed *Quercus petraea*–*Fagus sylvatica* old growth forest revealed through the spatial pattern of competition and mortality. *Forest Ecology and Management* 326: 9-17.



32. Budeanu M., Sofletea N., **Petritan I.C.** 2013. Among-population Variation in Quality Traits in Two Romanian Provenance Trials with *Picea abies* L. *Baltic Forestry* 20: 37-47.
33. Petritan A.M, Nuske R.S., **Petritan I.C.**, Tudose N. C. 2013. Gap disturbance patterns in an old-growth sessile oak (*Quercus petraea* L.)–European beech (*Fagus sylvatica* L.) forest remnant in the Carpathian Mountains, Romania. *Forest Ecology and Management* 308: 67-75.
34. Petritan A.M., Biris I.A., Merce O., Turcu D., **Petritan I.C.** 2012. Structure and diversity of a natural temperate sessile oak (*Quercus petraea* L.) - European beech (*Fagus sylvatica* L.) forest. *Forest Ecology and Management* 280: 140-149.
35. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2012. Response of planted beech (*Fagus sylvatica* L.) and Douglas-fir (*Pseudotsuga menziesii* (Mirb.) Franco) saplings to herbaceous and small shrubs control on clearcuts. *Journal of Forest Research* 17: 164-174.
36. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2011. Fine roots of overstorey Norway spruce (*Picea abies*): distribution and influence on growth of underplanted beech (*Fagus sylvatica*) and Douglas-fir (*Pseudotsuga menziesii*) saplings. *Forest Systems* 20: 407-419.
37. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2011. Effects of root trenching of overstorey Norway spruce (*Picea abies*) on growth and biomass of underplanted beech (*Fagus sylvatica*) and Douglas fir (*Pseudotsuga menziesii*) saplings. *European Journal of Forest Research* 130: 813-828.
38. **Petritan I.C.**, von Lüpke B., Petritan A.M. 2011. Influence of shelterwood and ground vegetation on late spring frost damages of planted beech (*Fagus sylvatica*) and douglas-fir (*Pseudotsuga menziesii*) saplings. *Baltic Forestry* 17 17: 227-234.
39. Clinciu, I., **Petritan, I.C.**, Nita, M.D. 2010. Monitoring of the hydrotechnical torrent control structures: a statistical approach. **Environmental Engineering and Management Journal** 9:1699-1708.
40. Petritan A.M., von Lüpke B., **Petritan I.C.** 2010 A comparative analysis of foliar chemical composition and leaf construction costs of beech (*Fagus sylvatica* L.), sycamore maple (*Acer pseudoplatanus* L.) and ash (*Fraxinus excelsior* L.) saplings along a light gradient. **Annals of Forest Science**, 67(6): 610\_1\_8.
41. Petritan A.M., von Lüpke B., **Petritan I.C.** 2009 Influence of light availability on growth, leaf morphology and plant architecture of beech (*Fagus sylvatica* L.), maple (*Acer pseudoplatanus* L.) and ash (*Fraxinus excelsior* L.) saplings. **European Journal of Forest Research**, 128(1): 61-74.
42. Petritan A.M., von Lüpke B., **Petritan I.C.** 2007 Effects of shade on growth and mortality of maple (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*) and beech (*Fagus sylvatica*) saplings, **Forestry** 80(4): 397-412.

12.09.2024

Petrițan Ion Cătălin, PhD