

PRIJAVA

za dodjelu priznanja za poseban doprinos razvoju i međunarodnom pozicioniranju
Univerziteta Crne Gore u 2023. godini

OPIS NAUČNOG DOSTIGNUĆA U 2023. GODINI

Tokom izvještajnog perioda, u 2023. godini, radio sam kao mentor na UCG i vodim pet (5) kandidata na različitim nivoima obrazovanja u Crnoj Gori (master i doktorske studije). Tim istraživača uključuje doktoranda Željka Kalezića, koji istražuje oblast očuvanja prirodne i kulturne baštine. Doktorantkinja Milica Filipović radi istraživanja primjene računarskih modela u integralnom upravljanju slivovima, posebno se fokusirajući na načine korišćenja zemljišta i eroziju u Crnoj Gori. Mentor sam doktorandu Dejanu Zejaku koji istražuje interakcije zemljišta i biljke iz oblasti kontinentalnog voćarstva - gajenje maline u Polimlju. Pored toga, mentor sam magistrantici Andrijani Drenovac na Biotehničkom fakultetu UCG, gdje istražujemo degradaciju zemljišta i eroziju u jednom od slivova Primorja. Sa magistrantom Žarkom Uskokovićem izvodimo istraživanja u oblasti poljoprivredne tehnike. Ova saradnja, ostvarena tokom 2023. godine, sa motivisanim istraživačima doprinosi razvoju nauke, očuvanju prirodne i kulturne baštine, ali i razvoju poljoprivrede kod nas, što je moj doprinos, kao mentora, razvoju i međunarodnom pozicioniranju Biotehničkog fakulteta i Univerziteta Crne Gore u 2023. godini.

U periodu 30.11.2022-30.11.2023. objavio sam sa timom autora, kojima koordiniram preko WASWAC i drugih programa, ukupno **22 rada** u međunarodnim časopisima, od čega **19 radova koji su na citatnim listama SCI (Q1:7, Q2:9, Q3:3), rad u Scopus bazama (Q3:1)**; te jedno poglavlje u Monografiji. **Još dva rada su prihvaćena na SCI**, ali nisu predstavljena, jer još nisu dostupna online.

U kalendarskoj 2023. godini (period 1.1.2023-30.11.2023.) objavio sam sa timom autora, ukupno **15 radova** u međunarodnim časopisima, od čega **14 radova koji su na citatnim listama SCI (Q1:6, Q2:7, Q3:1)**, te jedan **rad u Scopus bazama (Q3:1)**, te jedno poglavlje u Monografiji.

Tokom izvještajnog perioda, sa istraživačima koje sam prethodno obučavao tokom boravka u Maroku, proučavani su rizici od klizišta u Marakešu i Ouarzazateu u Maroku, a rezultate smo objavili u prestižnom časopisu "Catena" (Elsevier) prve kvartile (Q1) sa impakt faktorom 6.4 i H-indeksom 150. U jednom od radova, sa istraživačima koje sam prethodno obučavao tokom boravka u Iranu, analiziran je uticaj načina korišćenja zemljišta na količinu sedimenta u zapadnom Iranu, a što je objavljeno u "Turkish Journal of Agriculture and Forestry", časopisa prve/drugog kvartile – zavisno od godina evaluacija (trenutno Q2), IF 2.7, H 49.

U oblasti održivog razvoja, objavljen je rad u časopisu "Environment, Development and Sustainability", prve kvartile (Q1) sa IF 4.7 i H 72, gdje je istraživana izvodljivost optimalnih parametara supstrata za održive zelene krovove Šri Lanke, odakle dolazi doktorand Shuraik Kader (Sri Lanka/Australija), koji se bavi istraživanjima pod mojim rukovođenjem. Sa istim timom iz Australije istraživali smo pitanja održivosti vodenih površina laguna, a rezultate objavili u "Turkish Journal of Agriculture and Forestry"; a pregled o supstratima zelenih krovova objavljen je u časopisu "Frontiers in Built Environment", (Q2).

Upravo sada, decembar 2023., u časopisu "Turkish Journal of Agriculture and Forestry", sa timom mladih istraživača koje sam obučio za korišćenje modela IntErO (Spalević, 2011/2019); Slivovi (Spalevic, 1999), Površine i rastojanja (Spalević, 1999), predstavili smo analize gubitaka organskog ugljenika i erozije na plantažama kafe u Minas Žeraisu, Brazil (prihvaćen za štampu, potvrda u prilogu).

Studija o integrisanom upravljanju zemljištima u Etiopiji objavljena je u časopisu "Soil & Tillage Research" (Q1) sa visokim impakt faktorom od 7.4 i H 162.

U oblasti paleoekologije, istraživali smo ulogu požara, ljudskih aktivnosti i klimatskih promjena šuma Dinarida, a rezultate objavili u časopisu "The Holocene" (Q1), IF 3.028 i H 127.

Nekoliko radova objavili smo u časopisu "Notulae Botanicae" (Q2) IF 1.8 i H 40, baveći se interakcijama zemljišta i biljke, te pomotehnike. U jednom predstavili istraživanja u vezi sa folijarnim prihranjivanjem nanočesticama; u drugom i trećem analizirali pitanja oprašivanja kod dunja, te proučavali mikropagaciju maslina u Turskoj, sa istraživačima sa kojima smo čvrsto uvezani kroz nekoliko programskih komunikacija (COST, WASWAC, primjena novih tehnologija).

Rad publikovan u časopisu "Heliyon" (Q1, IF 4.45, H 69) prikazuje uticaj izbora sorti i tretmana đubriva na prinose i sadržaj hranljivih materija jabuka.

Jedan od radova, objavljen 15. novembra 2023. u časopisu Open Geosciences izdavača De Gruyter, predstavlja rezultate paleoklimatskih istraživanja, a kojima je rukovodio akademik Slobodan Marković (SANU), a otkriva izuzetne podatke o klimatskoj evoluciji i ljudskoj migraciji kroz Dunavski koridor. Procjenom geoturističkog potencijala ovih lesnih profila identifikovani su izuzetni resursi koji mogu doprinijeti razvoju održive turističke destinacije kroz naučne centre i muzeje. Slično istraživanje je u toku za područje Crne Gore, sa istim timom istraživača, a publikovanje rada se očekuje u 2024. godini.

Rad "Soil Erosion Assessment Using the IntErO Model...", objavljen je u časopisu "Applied Sciences" sa impakt faktorom 2.7 i visokim H-indeksom 101, sa istraživanjem rađenom po tehničko-inovativnom metodu Spalevića (2011/2019: M 81, Novo tehničko rješenje – metoda, primijenjeno na međunarodnom nivou kod Ministarstva nauke Srbije, te potom Sjeverne Makedonije i Irana). Primjenom istih modela, istraživao je uticaj načina korišćenja zemljišta na produkciju sedimenta u Iranu, a rezultati objavljeni u časopisu "JEPE". U istom časopisu objavljena je i studija o poplavama u Crnoj Gori i širom svijeta analizirajući medijsko izvještavanje. U časopisu "Remote Sensing" prve kvartile (Q1), sa IF 5.4 i H 168, predstavljena su nova saznanja o monitoringu klizišta; U časopisu "Frontiers in Environmental Science", prve kvartile (Q1) sa IF 4.46 i H 61 publikovan je rad u kom smo se bavili mapiranjem klizišta na Zapadnom Balkanu. Istraživanja objavljena u časopisu "Water" (Q1, IF 3.4, H 85), predstavljaju održivost upravljanja toplotnim transferom u unutrašnjim tokovima. Radili smo dalje na primjeni membrana u desalinizaciji primjenjujući mašinsko učenje, a istraživanje objavili u časopisu "Membranes" (IF 4.3, i H 58). Jedno od istraživanja iz oblasti geoinformatike publikovano je u časopisu "Atmosphere" iz druge kvartile (Q2), IF 2.94, H 54, gdje je primjenom GIS-a modeliran proces erozije u slivu Kratovske rijeke u Sjevernoj Makedoniji.

Na kraju, važno je navesti rezultate istraživanja iz oblasti geonauka, koje smo objavili u časopisu koji se nalaze u SCOPUS bazama. U časopisu "Earth Sciences Research Journal" predstavili smo istraživanja detekcije i upravljanja područjima podložnim poplavama.

Predmetna istraživanja daju doprinos razumijevanju različitih aspekata prirodnih nauka i tehnologije sa fokusom na fizičko-geografska istraživanja i istraživanja iz oblasti biotehničkih nauka, a objavljena su u uglednim časopisima sa visokim impakt faktorima, čime je dijelom dat doprinos napretku nauke i istraživanja u 2023. godini kod nas.

Skrenuta je pažnja međunarodnoj naučnoj javnosti na metode i modele razvijene u Crnoj Gori.

U tekućoj godini učestvovao sam sa referatima i bio član odbora sledećih konferencija: (1) 27.9.2023: 27. Međunarodna eko-konferencija & 15. O zaštiti životne sredine gradova i prigradskih naselja, Novi Sad, Srbija; (2) 28.9.2023: CESGED 2023: Challenges of contemporary economy and society through the prism of green economy and sustainable development, Novi Sad, Serbia; (3) 5.10.2023: 30. naučni skup Tehnologija, kultura i razvoj, Tivat; (4) 19.10.2023. Učestvovao na konferenciji Dani dijaspore Crne Gore; (5) 21.10.2023: 6th International Symposium on Agricultural Engineering, Univerzitet u Beogradu - Poljoprivredni fakultet; (6) 2.11.2023. Naučna konferencija sa međunarodnim učešćem: Izazovi i perspektive za razvoj opštine Berane kao preduslov za valorizaciju Sjeverne regije Crne Gore.

Predsjedavao sam, i sa timom učestvovao sa 8 referata (13-15.10.2023) na Međunarodnoj konferenciji Natural Resources and Environmental Risks: Towards a Sustainable Future, održanoj u **Srpskoj akademiji nauka i umjetnosti**, Novi Sad, Srbija. Publikovanje predstavljenih rezultata predviđeno je za 2024.

U **Crnogorskoj akademiji nauka i umjetnosti** 4. aprila 2023. održao sam naučnu tribinu "Zemljište i degradacija zemljišta".

KOORDINACIJA ILI UČEŠĆE U MEĐUNARODNIM PROGRAMIMA I PROJEKTIMA U 2023.

U izvještajnom periodu (30. Novembar 2022 – 30. novembar 2023.) bio sam aktivno uključen u sledećim međunarodnim inicijativama:

1. World Association of Soil and Water Conservation (WASWAC), Councillor, Member of the WASWAC Council for the period 2020-2023; Coordinator / Chairman of the Young Scientists Forum within The World Association of Soil and Water Conservation - WASWAC. (vidi prilog)
2. Federal University of Alfenas, UNIFAL-MG, Alfenas, Minas Gerais, Brazil - Coordinator within the Federal University of Alfenas research team dedicated to addressing land degradation and soil erosion issues. (vidi prilog)
3. CA21104 - Pan-European Network for Sustainable Hydropower (PEN@Hydropower), Start date - 14/09/2022; End date - 13/09/2026. (dostupno na web strani COST – kod koordinatora Min. nauke)
4. CA18135 - Fire in the Earth System: Science & Society (FIRElinks), Start date - 24/04/2019; End date - 23/10/2023, Management Committee (dostupno na web strani COST – kod koordinatora Min. nauke)

OBJAVLJENE MONOGRAFIJE (U 2023. GOD)

U 2023. godini sa kolegom dr Milićem Čurovićem, predstavio sam u poglavlju Monografije **Akademije nauka i umjetnosti Republike Srpske** rad koji predstavlja nove pristupe primjene računarsko-grafickih metoda i geografskih informacionih sistema: Spalevic, V.; Curovic, M. (2023): Modeling of soil erosion using computer-graphic methods and geographic information systems. In: Govedar Z, Mataruga M, Przulj N (eds) Sustainable development and management of forest ecosystems. Academy of Sciences and Arts of the Republic of Srpska, Banja Luka, Monograph LI:143–170 [Spalevic, V., Curovic, M. (2023). Modeliranje erozije zemljišta primjenom računarsko-grafickih metoda i geografskih informacionih sistema. Urednici: Govedar Z, Mataruga M, Przulj N (urednici) Održivi razvoj i upravljanje sumskim ekosistemima. Akademija nauka i umjetnosti Republike Srpske, Banja Luka, Monografija LI:143–170], ISBN 979-99976-42-54-7

PRILOG

SPISAK RADOVA PUBLIKOVANIH U PERIODU 30. NOVEMBAR 2022 - 30. NOVEMBAR 2023.

u časopisima sa impakt faktorom većim od nule, koji su na citatnim listama SCI (Science Citation Index), SCIE (Science Citation Index Expanded), SSCI (Social Sciences Citation Index) ili A&HCI (Art and Humanities Citation Index)

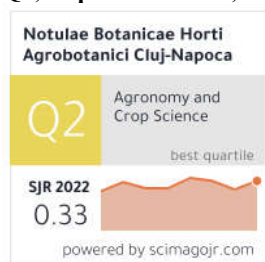
Izvor: Linkovi prema časopisima-radovima / Baza podataka UCG

https://www.ucg.ac.me/broj_radova_fakulteti_autori.php?org_jedinica_id=23

I DIO

30. NOVEMBAR 2022 – 30. DECEMBAR 2022.

1. **Velibor Spalevic**, Branislav Dudic, Sezai Ercisli, Mohsen Janmohammadi, Naser Sabaghnia (2022). Foliar spray of Si and Ti nanoparticles affected enzymatic antioxidants in rapeseed (*Brassica napus* L.). *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 50(4), 12859. <https://doi.org/10.15835/nbha50412859> (Quartiles - Q2, Impact factor 1.8, H-Index 40, Published: 08 12 2022)



2. Shuraik Kader, **Velibor Spalevic**, Branislav Dudic (2022). Feasibility study for estimating optimal substrate parameters for sustainable green roof in Sri Lanka. *Environment, Development and Sustainability*, Springer Nature. 2022(4),1-27. <https://doi.org/10.1007/s10668-022-02837-y> (Quartiles - Q1, Impact factor: 4.7 2022, H-Index 72, Published on 21 12 2022)



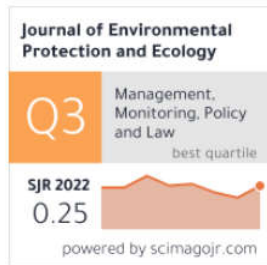
3. Fatemeh Sedighi, Abdulvahed Khaledi Darvishan, Valentin Golosov, Mohamad Reza Zare, **Velibor Spalevic** (2022). Influence of land use on changes of sediment budget components: Western Iran case study. *Turkish Journal of Agriculture and Forestry*, (2022) 46: 838-851. DOI: 10.55730/1300-011X.3046 (Quartiles – Q2, Impact Factor 2.669, H-Index 49, 05 12 2022)



4. Abdulvahed Khaledi Darvishan, Azadeh Katebikord, Hero Mohammad Amini, Leila Gholami, Milica Filipovic, **Velibor Spalevic** (2022). Evaluation of synthetic-colour-contrast aggregates for soil splash measurement. Journal of Environmental Protection and Ecology 23(8). 3433-3439 (**Quartiles - Q3, Impact Factor 0.577, 31 12 2022**)



5. Milena Mrdak-Micovic, Sonja Nenezic, **Velibor Spalevic**, Paolo Billi, Mirko Jakovljevic (2022). Flood disasters in Montenegro and around the World: Discourse analysis of media reporting in English and languages in use in Montenegro. Journal of Environmental Protection and Ecology, 23(7). 2844-2853 (**Quartiles - Q3, Impact Factor 0.577, 31 12 2022**)



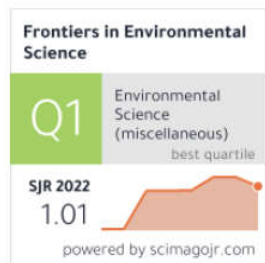
II DIO

01. JANUAR 2023 – 30. NOVEMBAR 2023.

1. Jerry, A.E.; Satishkumar, P.; Abdul Jaleel Maktoof, M.; Suplata, M.; Dudic, B.; **Spalevic, V.** (2023). Sustainable Heat Transfer Management: Modeling of Entropy Generation Minimization and Nusselt Number Development in Internal Flows with Various Shapes of Cross-Sections Using Water and Al₂O₃/Water Nanofluid. Water, 2023; 15(1):89. (**Q1, Impact Factor: 3.4, H-Index 85**)



2. Elkharchy Ismail, Ranjan Yadav Rajeev, Nouh Mabdeh Ali, Nguyen Thanh Phong, **Spalevic Velibor**, Dudic Branislav (2023). Landslide susceptibility mapping and management in Western Serbia: an analysis of ANFIS- and SVM-based hybrid models. Frontiers in Environmental Science, 2023 (11), 1218954. DOI: 10.3389/fenvs.2023.1218954 (**Quartiles - Q1, IF 4.46, H- 61**)



3. Bammou Youssef, Ismail Bouskri, Benzougagh Brahim, Shuraik Kader, Igmoullan Brahim, Bensaid Abdelkrim, **Velibor Spalevic** (2023). The contribution of the frequency ratio model and the prediction rate for the analysis of landslide risk in the Tizi N'tichka area on the national road (RN9) linking Marrakech and Ouarzazate. *Catena*, 2023, 232, 107464, <https://doi.org/10.1016/j.catena.2023.107464> (**Quartiles - Q1, impact factor: 6.4, H-Index 150**)



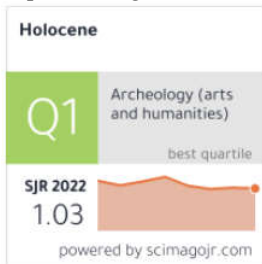
4. Dzevad Ljavic, Mirjana Radovic, Mirko Kulina, Dejan Zejak, **Velibor Spalevic**, Shuraik Kader, Branislav Dudic, Ruby Michael, Jennifer Campbell, Lizny Jaufer, Ivana Glisic, Ivan Glisic (2023). Influence of cultivar and fertilization treatment on the yield and leaf nutrients content of apple (*Malus domestica* Borkh.). *Heliyon*, 9 (6), 1-9, e16321, DOI: <https://doi.org/10.1016/j.heliyon.2023.e16321> (**Q1, IF 4.45, H-Index 69**)



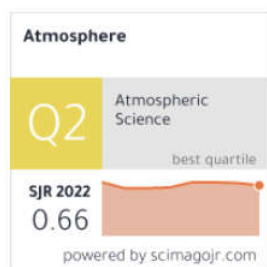
5. Mohammed Adem, Hossein Azadi, **Velibor Spalevic**, Marcin Pietrzykowski, Jurgen Scheffran. (2023). Impact of integrated soil fertility management practices on maize yield in Ethiopia. *Soil & Tillage Research*, 227 (2023), 105595 (**Q1, IF 7.4, H-162**)



6. Eleonora Cagliero; Laure Paradis; Niccolo Marchi; Zsuzsa Lisztes-Szabo; Mihály Braun; Katalin Hubay; Pierre Sabatier; Milic Curovic; **Velibor Spalevic**; Renzo Motta; Emanuele Lingua; Walter Finsinger (2023). The role of fire disturbances, human activities and climate change for long-term forest dynamics in upper-montane forests of the central Dinaric Alps. *The Holocene*, 33(7), 827-841. <https://doi.org/10.1177/09596836231163515> (**Quartiles - Q1, Impact Factor 3.028, H-Index 127**)



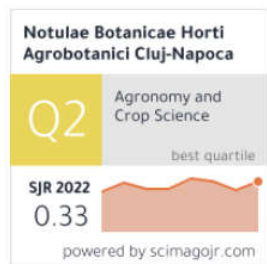
7. Bojana Aleksova, Tin Lukic, Ivica Milevski, **Velibor Spalevic**, Slobodan Markovic (2023). Modelling Water Erosion and Mass Movements (Wet) by Using GIS-Based Multi-Hazard Susceptibility Assessment Approaches: A Case Study—Kratovska Reka Catchment (North Macedonia). *Atmosphere* 2023, 14, 1139. <https://doi.org/10.3390/atmos14071139> (Q2, IF 2.94, H- 54)



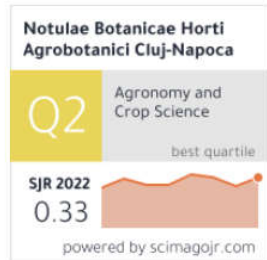
8. Shuraik Kader, Morufu Olalekan Raimi, **Velibor Spalevic**, Austin-Asomeji Iyingiala, Raheem Waliyyat Bukola, Lizny Jaufer, Talib E. Butt (2023). A concise study on essential parameters for the sustainability of Lagoon waters in terms of scientific literature. *Turkish Journal of Agriculture and Forestry*, (2023) 47: 288-307. doi:10.55730/1300-011X.3087 (Q2, IF 2.669, H- 49)



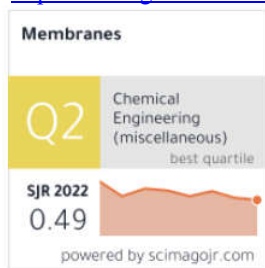
9. Aleksandar Radovic, Dragan Nikolic, Dragan Milatovic, Ivana Radovic, Dejan Zejak, **Velibor Spalevic**, Branislav Dudic (2023). Incompatible pollen tubes in the quince style and their impact on fertilization success. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 51 (2), 13083 DOI:10.15835/nbha51213083 (Quartiles - Q2, Impact Factor. 1.444, H-Index 40)



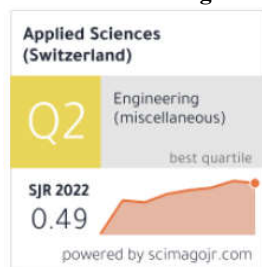
10. Zeliha Ciftci, Ebru Sakar, Sezai Ercisli, Mehmet ilhan Odabasioglu, Dejan Zejak, **Velibor Spalevic** (2023). Micropropagation of autochthonous olive varieties from Türkiye . *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 51(3), 13267. <https://doi.org/10.15835/nbha51313267> (Quartiles - Q2, Impact Factor. 1.444, H-Index 40)



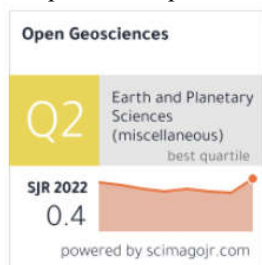
11. Abdelfattah Amari, Mohammed Hasan Ali, Mustafa Musa Jaber, **Velibor Spalevic**, Rajko Novicevic (2023). Study of Membranes with Nanotubes to Enhance Osmosis Desalination Efficiency by Using Machine Learning towards Sustainable Water Management. Membranes. 2023; 13(1):31. <https://doi.org/10.3390/membranes13010031> (Q2, IF 4.3, H 58)



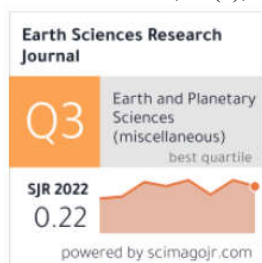
12. Paul Sestras, Sevastel Mircea, Sorin Cimpeanu, Razvan Teodorescu, Sanda Rosca, Stefan Bilasco, Teodor Rusu, Tudor Salagean, Lucian Octavian Dragomir, Rastko Markovic, **Velibor Spalevic** (2023). Soil Erosion Assessment Using the Intensity of Erosion and Outflow Model by Estimating Sediment Yield: Case Study in River Basins with Different Characteristics from Cluj County, Romania. Applied Sciences. 2023, 13(16): 9481. <https://doi.org/10.3390/app13169481> (Quartiles - Q2, Impact Factor: 2.7, H-Index 101, Published on 21 August 2023)



13. Aleksandar Antic, Milica Radakovic, Milos Marjanovic, Slobodan Markovic, Zoran Peric, **Velibor Spalevic**, Oliver Momcilovic, Milica Kostadinovic, Rastko Markovic, Nemanja Tomic (2023). Loess and geotourism potential of the Branicevo District (NE Serbia): From overexploitation to paleoclimate interpretation. Open Geosciences 2023; 15 (1): 20220546. <https://doi.org/10.1515/geo-2022-0546>



14. Lucas Emanuel Servidoni; Joaquim Ernesto Bernardes Ayer; Guilherme Henrique Expedito Lense; Felipe Gomes Rubira; **Velibor Spalevic**; Branislav Dudic; Ronaldo Luiz Mincato (2023). Methodological proposal to remote detection and management of areas that are naturally vulnerable to floods. Earth Sciences Research Journal, 27(1), 59–68. <https://doi.org/10.15446/esrj.v27n1.103542> (Quartiles - Q3, H-Index 19).

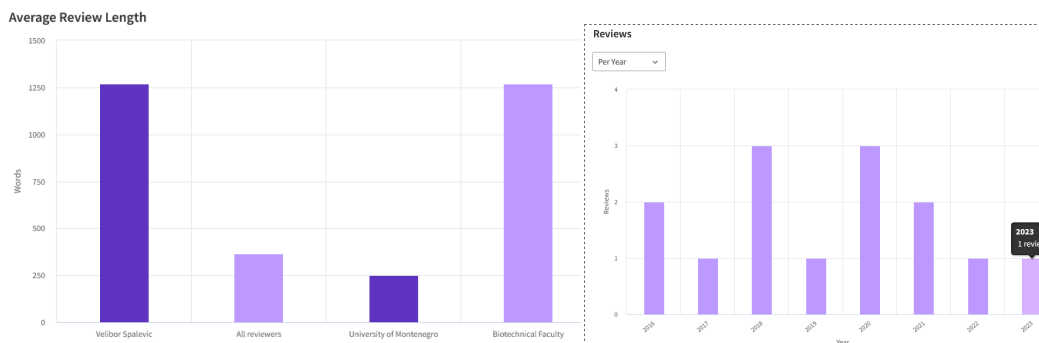


SCOPUS

1. Moukhliiss Mohammed, Abdeslam Taleb, Abdessalam Ouallali, **Velibor Spalevic**, Nouhaila Mazigh, Badr El Fathi, and Salah Souabi (2023). Assessment of Groundwater Quality in the Berrechid Aquifer, Central Morocco, Using Multivariate Statistics and Water Quality Indices. Ecological Engineering & Environmental Technology, 2023; 4: 187–199 DOI: <https://doi.org/10.12912/27197050/159969> (Quartiles - Q3, IF 0, H-Index 7, Published on 10 April 2023)



Recenzije u časopisu koji se nalazi na platformi „WoS” („Clarivate analytics”, „sci/scie/ssci/a&hci”)



OSTVARENA PRIMJENA REZULTATA ISTRAŽIVANJA U PRAKSI (U 2023.)

M 81 – Tehničko rešenje (metoda) primenjeno na međunarodnom nivou pod nazivom „IntErO model“ autora Velibora Spalevića.

Pravilnik o postupku i načinu vrednovanja i kvantitativnom iskazivanju naučnoistraživačkih rezultata istraživača (“Službeni glasnik RS” broj 24/2016, 21/2017, 38/2017) za dodelu kategorije **M 81 – Tehničko rešenje (metoda) primenjeno na međunarodnom nivou**, priznato kod Ministarstva nauke, tehnološkog razvoja i inovacija Republike Srbije; Sjeverne Makedonije; Irana.

Radovi predstavljeni u 2023. godini su velikim dijelom rađeni primjenom ovog tehničkog rješenja. U pravilnicima susjednih zemalja primjena metoda / modela kod publikovanja radova na SCI izjednačava se sa primjenom rezultata istraživanja u praksi. Otuda navođenje primjene ove reference – Tehničko rešenje (metoda) primijenjeno na međunarodnom nivou, a dokazi primjene u radovima na SCI su vidljivi u naslovima radova iz 2023, te radovima koji su dostavljeni u materijalima u prilogu.

Web: <https://www.geasci.org/IntErO>

U Podgorici

Kandidat za nagradu:

Velibor Spalević

Datum: 1/12/2023

Potpis kandidata:



**World Association of Soil
and Water Conservation
(WASWAC)**

The Secretariat of WASWAC

IRTCEs Building

No. 20 Chegongzhuang Road West, Beijing 100048, P. R. China

Tel: 86 10 6878 6579

Fax: 86 10 6841 1174

Email: waswac@foxmail.com

Website: www.waswac.org.cn



Certificate Details

Name: Prof. Dr. Velibor Spalević

Membership Period: WASWAC Council 2020-2023

Role: Chairman of the Youth Committee of the World Association of Soil and Water Conservation (WASWAC) and Member of the WASWAC Council

Upon the request of Prof. Dr. Velibor Spalević, we wish to confirm the official role and position of Professor Spalevic, an esteemed academic and professional from Montenegro, within the World Association of Soil and Water Conservation.

Prof. Dr. Velibor Spalević is a dedicated member of our organization but also an esteemed scientist specializing in Soil and Water Conservation. We are issuing this certificate to serve as an attachment to his Report on Scientific Achievements for the year 2023.

Prof. Dr. Velibor Spalević holds the distinguished position of being one of the 47 Members of the WASWAC Council for the period 2020-2023. Additionally, he serves as the Chairman of the Youth Committee within the WASWAC.

The WASWAC is a globally recognized academic society founded in the United States in January 1983. WASWAC's commitment to advancing research, addressing scientific and technical challenges in soil and water conservation, and supporting collaborative research projects, international training courses, symposia, workshops, and awards has spanned many years.

WASWAC's primary objective is to promote the wise use of management practices that will improve and safeguard the quality of land and water resources so that they continue to meet the needs of agriculture, society and nature. The organization's vision encompasses a world in which all soil and water resources are utilized in a productive, sustainable, and ecologically sound manner.

Prof. Dr. Velibor Spalević 's active involvement and leadership in WASWAC exemplify his dedication to these fundamental principles. His roles as the Coordinator of the Young Scientists Forum and Councillor Member of the WASWAC Council significantly contribute to the achievement of the organization's goals and objectives.

Should you have any inquiries or require additional information regarding Prof. Dr. Velibor Spalević 's association with WASWAC, please do not hesitate to contact us. We are readily available to provide any necessary clarifications or documentation.

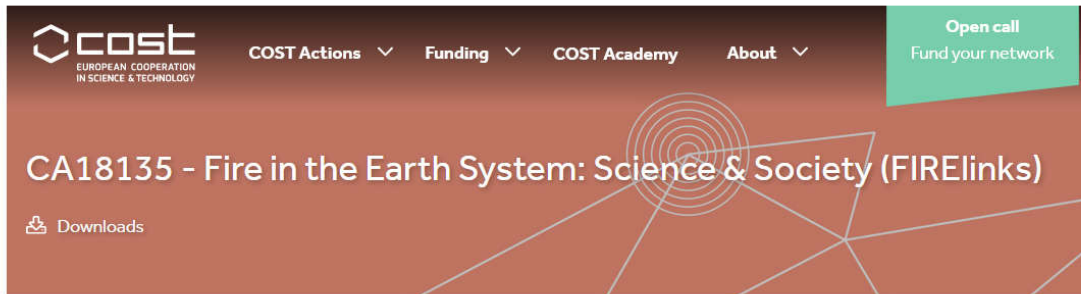
Sincerely,



Prof. Dr. Ning Duihu
President, World Association of Soil and Water Conservation (WASWAC)
20 Chegongzhuang West Road, Beijing, China. 100048
Tel: +86 10 68785731
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Prof. Dr. S.H.R. Sadeghi
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Montenegro	Dr Milic CUROVIC ▾
Montenegro	Prof Velibor SPALEVIC ▲
University of Montenegro, Faculty of Philosophy Mihaila Lalica, Podgorica, Montenegro Montenegro 81000 Podgorica	
Participating actions CA21104 TN1401 ES1306 CA18135	
+382 67 201 222 velibor.spalevic@gmail.com	

CA18135 - Fire in the Earth System: Science & Society (FIRElinks)

Action Details

- MoU - 116/18
- CSO Approval date - 13/11/2018
- Start date - 24/04/2019
- End date - 23/10/2023
- Former end date - 23/04/2023
- <https://firelinks.eu>

Start date - 24/04/2019
End date - 23/10/2023

CA21104 - Pan-European Network for Sustainable Hydropower (PEN@Hydropower)

Action Details

- MoU - 018/22
- CSO Approval date - 27/05/2022
- Start date - 14/09/2022
- End date - 13/09/2026
- <https://www.pen-hydropower.eu/>

Start date - 14/09/2022
End date - 13/09/2026

Certificate of recognition

Upon the request of Prof. Dr. Velibor Spalević, we are pleased to officially confirm Professor Spalević's role as Coordinator, serving alongside with Prof. Dr. Ronaldo Ruiz Mincato as the local coordinator and Prof. Dr. Velibor Spalevic from Montenegro as the international coordinator within the Federal University of Alfenas team dedicated to addressing land degradation and soil erosion issues.

Prof. Dr. Velibor Spalevic's active involvement and joint coordination with Prof. Dr. Ronaldo Ruiz Mincato within the Federal University of Alfenas team dedicated to addressing land degradation and soil erosion issues exemplify his dedication as a coordinator to young researchers at our university. His roles as the Coordinator contribute significantly to the achievement of the institution's goals and objectives, as reflected by his trainings on the use of soil erosion models and consequent joint publication of 22 joint research papers between 2016 and 2023 (a list of these research papers with links to download is attached to this Certificate of Recognition).

We issue this certificate as an attachment to his Report on Scientific Achievements for the year 2023.

If you have any inquiries or require additional information about Prof. Dr. Velibor Spalevic's association with the Federal University of Alfenas team dedicated to addressing land degradation and soil erosion issues, please feel free to contact us for any necessary clarifications or documentation.

Sincerely,

Documento assinado digitalmente
 **RONALDO LUIZ MINCATO**
Data: 11/11/2023 09:34:18-0300
Verifique em <https://validar.itl.gov.br>

Prof. Dr. Ronaldo Luiz Mincato
Associate Professor
Federal University of Alfenas
UNIFAL-MG, Alfenas, Minas Gerais
BRAZIL

Annex

List of Research Results Published Under the Joint Coordination of Prof. Dr. Velibor Spalevic from Montenegro - International Coordinator, and Prof. Dr. Ronaldo Ruiz Mincato, Coordinator from the Federal University of Alfenas (UNIFAL-MG), Alfenas, Minas Gerais, Brazil

2023

Servidoni, L.E., Ayer, J.E.B., Lense, G.H.E., Rubira, F.G., Spalevic, V., Dudic, B., Mincato, R.L. (2023). Methodological proposal to remote detection and management of areas that are naturally vulnerable to floods. *Earth Sciences Research Journal*, 27(1), 59–68. <https://doi.org/10.15446/esrj.v27n1.103542>.

2022

Lense, G.H.E., Servidoni, L.E., Parreiras, T.C., Santana, D.B., Bolleli, T.M., Ayer, J.E.B., Spalevic, V., Mincato, R.L. (2022). Modeling of soil loss by water erosion in the Tietê River Hydrographic Basin, São Paulo, Brazil [Modelagem da perda de solo por erosão hídrica na Bacia Hidrográfica do Rio Tietê, São Paulo, Brasil]. *Semina: Ciênc. Agrár. Londrina*, 43(4), 1417-1436.

Rodrigues Neto, M.R., Musselli, D.G., Lense, G.H.E., Servidoni, L.E., Stefanidis, S., Spalevic, V., Mincato, R.L. (2022). Soil loss modeling by the IntErO model - Erosion Potential Method in the Machado River Watershed, Minas Gerais, Brazil. *Agriculture and Forestry*, 68(2), 7-21. doi:10.17707/AgricultForest.68.2.01.

Sabri, E., Spalevic, V., Boukdir, A., Karaoui, I., Ouallali, A., Mincato, R.L., Sestras, P. (2022). Estimation of soil losses and reservoir sedimentation: A case study in Tillouguite Sub-basin (High Atlas-Morocco). *Agriculture and Forestry*, 68(2), 207-220. doi:10.17707/AgricultForest.68.2.15.

Stefanidis, S., Alexandridis, V., Spalevic, V., Mincato, R.L. (2022). Wildfire Effects on Soil Erosion Dynamics: The Case of 2021 Megafires in Greece. *Agriculture and Forestry*, 68(2), 49-63. doi:10.17707/AgricultForest.68.2.04.

2021

Felix, F.C., Spalevic, V., Curovic, M., Mincato, R.L. (2021). Comparing pixel- and object-based forest canopy gaps classification using low-cost unmanned aerial vehicle imagery. *Agriculture and Forestry*, 67(3), 19-29. DOI: 10.17707/AgricultForest.67.3.02.

Kalehouei, M., Hazbavi, Z., Spalevic, V., Mincato, R.L., Sestras, P. (2021). What is Smart Watershed Management? *Agriculture and Forestry*, 67(2), 195-209. DOI: 10.17707/AgricultForest.67.2.14.

Lense, G.H.E., Parreiras, T.C., Spalevic, V., Avanzi, J.C., & Mincato, R.L. (2021). Soil losses in the State of Rondônia, Brazil. *Ciência Rural*, 51(5), 1-10. doi:10.1590/0103-8478cr20200460.

Oliveira, G.H., Servidoni, L.E., Spalevic, V., Gaspar Junior, L.A., Mincato, R.L. (2021). Geological heritage management and preservation instruments: Case study of the municipality of Conceição da Aparecida, Minas Gerais – Brazil. *Agriculture and Forestry*, 67(3), 71-82. DOI: 10.17707/AgricultForest.67.3.06.

Santana, D.B., Bolleli, T.M., Lense, G.H.E., Silva, L.F.P.M., Sestras, P., Spalevic, V., Mincato, R.L. (2021). Estimate of water erosion in coffee growing areas in Serra da Mantiqueira, Minas Gerais State, Brazil. *Agriculture and Forestry*, 67(2), 75-88. DOI: 10.17707/AgricultForest.67.2.06.

Silva, V.A., Perez Filho, A., Moreira, V.B., Lämmle, L., Torres, B.A., Ayer, J.E.B., Spalevic, V., Mincato, R.L. (2021). Characterization and geochronology of the deltaic system

from Jequitinhonha River, Brazil. *Agriculture and Forestry*, 67(3), 121-134. DOI: 10.17707/AgricultForest.67.3.10.

Tavares, A.S., Uagoda, R.E.S., Spalevic, V., Mincato, R.L. (2021). Analysis of the erosion potential and sediment yield using the IntErO model in an experimental watershed dominated by karst in Brazil. *Agriculture and Forestry*, 67(2), 153-162. DOI: 10.17707/AgricultForest.67.2.11.

2020

Ayer, B.E.J., Mincato, L.R., Lammle, L., Silva, M.P.F.L., Garofalo, T.F.D., Servidoni, E.L., Spalevic, V., Pereira, Y.S. (2020). Hydrosedimentological dynamics in the Guarani Aquifer System, Ribeirão Preto, State of Sao Paulo, Brazil. *Agriculture and Forestry*, 66(1), 215-232. DOI: 10.17707/AgricultForest.66.1.20.

Bolleli, T.M., Lense, G.H.E., Santana, D.B., Moreira, R.S., Sestras, P., Spalevic, V., Mincato, R.L. (2020). Estimates of soil losses in watershed under tropical of altitude climate in Brazil. *Agriculture and Forestry*, 66(4), 73-88. DOI: 10.17707/AgricultForest.66.4.06.

Lense, G.H.E., Moreira, R.S., Bócoli, F.A., Parreiras, T.C., Teodoro, A.E. de M., Spalevic, V., Mincato, R.L. (2020). Soil organic matter loss by water erosion in a coffee organic farm. *Agriculture and Forestry*, 66(2), 45-50. DOI: 10.17707/AgricultForest.66.2.04.

Sakuno, N.R.R., Guicardi, A.C.F., Spalevic, V., Avanzi, J.C., Silva, M.L.N., Mincato, R.L. (2020). Adaptation and application of the erosion potential method for tropical soils. *Revista Ciência Agronômica*, 51(1), e20186545. Epub February 03, 2020. URL: <http://www.scielo.br/pdf/rca/v51n1/1806-6690-rca-51-01-e20186545.pdf>.

2019

Khaledi Darvishan, A., Mohammadi, M., Skataric, G., Popovic, S., Behzadfar, M., Rodolfo Ribeiro Sakuno, N., Luiz Mincato, R., Spalevic, V. (2019). Assessment of soil erosion, sediment yield, and maximum outflow, using IntErO model (Case study: S8-IntA Shirindarreh Watershed, Iran). *Agriculture and Forestry*, 65(4), 203-210. DOI: 10.17707/AgricultForest.65.4.18.

Tavares, A.S., Spalevic, V., Avanzi, J.C., Nogueira, D.A., Silva, M.L.N., Mincato, R.L. (2019). Modeling of water erosion by the erosion potential method in a pilot subbasin in southern Minas Gerais [Modelagem da erosão hídrica pelo método de erosão potencial em uma sub-bacia hidrográfica de referência no sul de Minas Gerais]. *Semina: Ciências Agrárias*, 40(2), 555-572. DOI: 10.5433/1679-0359.2019V40N2P555.

2017

Marangon, F., Servidoni, L.E., Costa, C.W., Spalevic, V., Mincato, R.L. (2017). Land use and groundwater resources potential vulnerability to contamination. *Agriculture and Forestry*, 63(1), 211-222. DOI: 10.17707/AgricultForest.63.1.25.

Sakuno, N.R.R., Kawakubo, F.S., Spalevic, V., Mincato, R.L. (2017). Mapping Impervious Surfaces in Urban Areas Using Index Images Generated From The Landsat-5 Thematic Mapper System. *Revista do Departamento de Geografia, Volume Especial – Eixo 9* (2017), 190-198. DOI: 10.11606/rdg.v0ispe.132729.

2016

Servidoni, L.E., Ayer, J.E.B., Silva, M.L.N., Spalevic, V., Mincato, R.L. (2016). Land use capacity and environment services. *Revista Brasileira de Geografia Física*, 09(06), 1712-1724.

Predsjedavao sam, i sa timom učestvovao sa 8 refereata (13-15.10.2023) na Međunarodnoj konferenciji Natural Resources and Environmental Risks: Towards a Sustainable Future, održanoj u Srpskoj akademiji nauka i umetnosti, Novi Sad, Srbija.



Огранак Сану у Новом Саду



Velibor Spalevic, Scientific Board member. Velibor Spalevic, Gyorgy Sipos after 9:00-9:30 Opening ceremony, from 9:30 to 11:00 Plenary session chairman. Radovi koji su, pored ostalih predstavljeni na konferenciji, uz autorstvo i koautorstvo Velibora Spalevica:

- Lukic, T., Wilby, L., Micic Ponjiger, T., Markovic, S., Sreckovic Batocanin, D., Milevski, I., Margarint, M., Spalevic, V., Popov Raljac, J., Morar, C., Radakovic, M., Allen, M., Batocanin, N., Valjarevic, A. (2023). A Slippery Slope: Evaluating the Causal Factors of the Mramor Landslide (Southern Serbia). Plenary Session – Part 2. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 54-55. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Spalevic, V., Curovic, M., Lukic, T., Markovic, S., Markovic, R. (2023). Soil Erosion Dynamics and Hydrological Impacts of Land Use-Induced Changes in the Berane Valley of Polimlje, North-eastern Montenegro. Plenary Session – Part 2. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 54-55. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Markovic, R., Spalevic, V., Djordjevic, M., Markovic, S., Radivojevic, A. (2023). The impact of climate and land use changes and on soil erosion in the river basin of Visocica river and accumulation of sediment in Zavoj lake. Thematic Session – Natural Hazards and Environmental Risk. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 63. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Markovic, R., Spalevic, V., Bogosavljevic, M., Gocic, M., Radivojevic, A. (2023). Land use and environmental changes influence on erosion production, using IntErO model (Case study: Sokobanja basin, Eastern Serbia). Thematic Session – Natural Hazards and Environmental Risk. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 65. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Micic Ponjiger, T., Lukic, T., Wilby, R.L., Milevski, I., Spalevic, V., Aleksova, B., Valjarevic, A., Markovic, S. (2023). Cover-Management Factor, Slope Length and Steepness Factor (LS-Factor) for Modeling Water-Induced Soil Erosion in the Western Balkans. Thematic Session – Natural Hazards and Environmental Risks. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 66-67. Serbian Academy of Science and Arts.
- Aleksova, B., Lukic, T., Milevski, I., Spalevic, V., Markovic, S.B. (2023). Modelling water erosion and mass movements (wet) by using GIS-based multi-hazard susceptibility assessment approaches: a case study – Kratovska reka catchment (North Macedonia). Poster session. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 71. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Ouakhir, H., Ennaji, N., Spalevic, V., Markovic, R., Sestras, P., El Ghachi, M. (2023). Assessing of the effect of land use and land cover changes on the intensity of soil erosion and sediment transport applying the IntErO Model within Mkhedach catchment (Middle Atlas/Morocco). Poster Session. In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 75. Serbian Academy of Science and Arts, Novi Sad, Serbia.
- Ennaji, N., Ouakhir, H., Spalevic, V., Markovic, S., Sestras, P., Said, H., & Abahrour, M. (2023). Analysis of land sensitivity and degradation by applying MEDALUS model in two Mediterranean catchments (Middle Atlas of Morocco). In International Conference Natural Resources and Environmental Risks: Towards a Sustainable Future, Book of Abstracts, p. 102. Serbian Academy of Science and Arts, Novi Sad, Serbia.

U Crnogorskoj akademiji nauka i umjetnosti 4. aprila 2023. održao sam naučnu tribinu “Zemljište i degradacija zemljišta”.



CANU
Crnogorska akademija
nauka i umjetnosti

