

# Lista de publicații

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## Articole și capitole de carte

### Domeniul principal de interes

1. M.S. Stupariu, *Discrete curvatures of triangle meshes: From approximation of smooth surfaces to digital terrain data*, Computers & Geosciences, volume 153, 2021, 104789.
2. T. Cioacă, B. Dumitrescu, M.S. Stupariu, *Graph-based wavelet multiresolution modeling of multivariate terrain data*, in Stanković L., Sejdić E. (eds) Vertex-Frequency Analysis of Graph Signals, Signals and Communication Technology, Springer, 2019, pp. 479–507.
3. T. Cioacă, B. Dumitrescu, M.S. Stupariu, *Lazy Wavelet Simplification using Scale-dependent Dense Geometric Variability Descriptors*, Control Engineering and Applied Informatics, **19** (2017), 15–26.
4. T. Cioacă, B. Dumitrescu, M.S. Stupariu, *Graph-based Wavelet Representation of Multidimensional Terrain Data*, Computer Graphics Forum, **35** (2016), 44–58.
5. T. Cioacă, B. Dumitrescu, M.S. Stupariu, *Combined quadric error metric and lifting scheme multivariate model simplification*, University Politehnica of Bucharest Scientific Bulletin, Series C, **78** (2016), 51–62.
6. M.S. Stupariu, *A quiver approach to studying orbit spaces of linear systems*, System & Control Letters, **73** (2014), 1–5.
7. M.S. Stupariu, *Filtrations, weights and quiver problems*, Linear Algebra and Its Applications, **436** (2012), 648–658.
8. M.S. Stupariu, *Representations of quivers and associated gauge-theoretical problems*, Bull. of the Transilvania University of Brașov, series III, **1 (50)** (2008), 387–394.
9. M.S. Stupariu, *Some properties of the  $(G, \rho)$ -monopoles*, Bull. of the Transilvania University of Brașov, series B, **14 (49)** (2007), 315–323.
10. M.S. Stupariu, *A compactness criterion for quotients associated to linear actions*, Analele Universității din București, Matematica, **LVI** (2007), 221–230.
11. M.S. Stupariu, *GIT-stability for a class of linear systems*, Math. Reports, **9 (59)** (2007), 4, 377–384.

12. C. Voica, M.S. Stupariu, *Teaching Linear Algebra to students in Informatics*, Proceedings CAIM 14, Romai Educational Journal **2** (2007), 74 – 77.
13. C. Voica, M.S. Stupariu, *Un studiu privind învățarea spațiilor vectoriale (Teaching vector spaces)*, Proceedings CAIM 13, Romai Educational Journal **1** (2006), 64 – 72.
14. C. Voica, M.S. Stupariu, *Reprezentări mentale ale conceptelor de algebră liniară (Mental representations of basic linear algebra notions)*, Bull. SSM, Proceedings of the RMS Conference, mai 2006.
15. M. Halic, M.S. Stupariu, *Rings of invariants for representations of quivers*, Comptes Rendus de l'Académie Science Paris – Mathématique, **340** (2005), 135 – 140.
16. M.S. Stupariu, *Stability in linear problems*, Preprint MI-2003-22, University of Leiden, 2003.
17. M.S. Stupariu, *On the  $(G, \rho)$ -monopole equations*, Revue Roumaine Math. Pures et Appliquées, **48** (2003), 3, 311 – 326.
18. M.S. Stupariu, *Quotients in algebraic and symplectic geometry*, Anual Report 2002, Institute of Mathematics, University of Leiden, 5 – 12.
19. M.S. Stupariu, *The Kobayashi-Hitchin correspondence for vortex-type equations coupled with Higgs fields (II)*, Math. Reports, **4 (54)** (2002), 1, 123 – 142.
20. M.S. Stupariu, *The Kobayashi-Hitchin correspondence for vortex-type equations coupled with Higgs fields (I)*, Math. Reports, **3 (53)** (2001), 4, 425 – 444.
21. M.S. Stupariu, *Dimensional reduction of monopole equations*, Math. Reports, **3 (53)** (2001), 3, 293 – 303.
22. M.S. Stupariu, *Sur les courbes caractéristiques associées à l'algèbre de déformation des deux connexions linéaires*, Studii și cercetări matematice, **5-6 (49)** (1997), 423 – 427.
23. I.E. Hiriță, L. Nicolescu, M.S. Stupariu, *Champs  $m$ -spéciaux dans l'algèbre de déformation*, An. Univ. Oradea, Fasc. Matem., **V** (1995-1996), 119 – 134.
24. I.E. Hiriță, L. Nicolescu, M.S. Stupariu, *On conformally semisymmetric connections*, An.Univ.Oradea, Fasc. Matem., **V** (1995-1996), 135 – 149.

### Articole interdisciplinare

1. M.S. Stupariu, S. Cushman, A. Pleșoianu, I. Pătru-Stupariu, Ch. Fürst, *Machine learning in landscape ecological analyses: a review of recent approaches*, Landscape Ecology, in press.
2. M.S. Stupariu, A. Pleșoianu, I. Pătru-Stupariu, Ch. Fürst, *A method for tree detection based on similarity with geometric shapes of 3D geospatial data*, ISPRS International Journal of Geo-Information, **9(5)**, 298, 2020.

3. A. Pleşoianu, M.S. Stupariu, I. Şandric, I. Pătru-Stupariu, L. Drăguţ, *Individual tree-crown detection and species classification in very high-resolution Remote Sensing imagery using a Deep Learning ensemble model*, *Remote Sensing*, 12(15), 2426, 2020.
4. I. Pătru-Stupariu, C. Hossu, S. Grădinaru, A. Niţă, M.S. Stupariu, A. Huzui-Stoiculescu, A. Gavrilidis, *A Review of Changes in Mountain Land Use and Ecosystem Services: From Theory to Practice*, *Land*, 9(9), 336, 2020.
5. J. Fang, A. Peringer, M.S. Stupariu, I. Pătru-Stupariu, A. Buttler, F. Golay, F. Porté-Agel, *Shifts in wind energy potential following land-use driven vegetation dynamics in complex terrains*, *Science of The Total Environment*, **639** (2018), 374–384.
6. I. Pătru-Stupariu, A.M. Calotă, M. Santonja, P. Anastasiu, I. Stoicescu, A.I. Biriş, M.S. Stupariu, A. Buttler, *Do wind turbines impact plant community properties in mountain region?*, *Biologia* **74** (2019), 1613–1619.
7. I. Pătru-Stupariu, M.S. Stupariu, I. Stoicescu, A. Peringer, A. Buttler, Ch. Fürst, *Integrating geo-biodiversity features in the analysis of landscape patterns*, *Ecological Indicators*, **80** (2017), 363–375.
8. M. Năpăruş-Aljančić, I. Pătru-Stupariu, M.S. Stupariu, *Multiscale wavelet-based analysis to detect hidden geodiversity*, *Progress in Physical Geography*, **41** (2017), 601–619.
9. A. Peringer, A. Buttler, F. Gillet, I. Pătru-Stupariu, K. Schulze, M.S. Stupariu, G. Rosenthal, *Disturbance-grazer-vegetation interactions maintain habitat diversity in mountain pasture-woodlands*, *Ecological Modelling*, **359** (2017), 301–310.
10. I. Pătru-Stupariu, C.A. Tudor, M.S. Stupariu, A. Buttler, A. Peringer, *Landscapes persistence and stakeholders' perspective. The case of the Romanian Carpathians*, *Applied Geography*, **69** (2016), 87–98.
11. A. Peringer, F. Gillet, G. Rosenthal, I. Stoicescu I., I. Pătru-Stupariu, M.S. Stupariu, A. Buttler, *Landscape-scale simulation experiments test Romanian and Swiss management guidelines for mountain pasture-woodland habitat diversity*, *Ecological Modelling* **330** (2016), 41–49.
12. A. Peringer, K.A. Schulze, I. Pătru-Stupariu, M.S. Stupariu, G. Rosenthal, F. Gillet, A. Buttler, *Multi-scale feedbacks between tree regeneration traits and herbivore behaviour explain the structure of pasture-woodland mosaics*, *Landscape Ecology*, **31** (2016), 913–927.
13. T. Cioacă, B. Dumitrescu, M.S. Stupariu, I. Pătru-Stupariu, M. Năpăruş, I. Stoicescu, A. Peringer, A. Buttler, F. Golay, *Heuristic-driven Graph Wavelet Modeling of Complex Terrain*, *Proceedings of SPIE*, **9443** (2015).
14. I. Pătru-Stupariu, M.S. Stupariu, C.A. Tudor, S.R. Grădinaru, A. Gavrilidis, F. Kienast, A.M. Hersperger, *Landscape fragmentation in Romania's Southern Carpathians: testing a European assessment with local data*, *Landscape and Urban Planning*, **143** (2015), 1–8.

15. I. Pătru-Stupariu, M.S. Stupariu, R. Cuculici, A. Huzui, *The integration of historical maps in landscape reconstruction. Case study: Sinaia, Romania*, Journal of Maps, v **2011** (2011), 206–220.
16. M.S. Stupariu, I. Pătru-Stupariu, R. Cuculici, *Geometric approaches to computing 3D-landscape metrics*, Landscape Online, **24** (2010), 1–12.
17. M.S. Stupariu, I. Pătru-Stupariu, *Metode și tehnici în elaborarea algoritmului de evaluare peisagistică. Modelul Markov*, în: Elaborarea și implementarea unui algoritm de evaluare și prognoză peisagistică, pp. 41-56. Editura Universității din București, 2011.

## Prezentări la conferințe

1. M.S. Stupariu, Ch. Fürst, I. Pătru-Stupariu, *Differentiating between 2D and 3D landscape metrics: the role of surface variability*, IALE 2019 World Congress, Milano.
2. M.S. Stupariu, A. Dumitriu, I. Pătru-Stupariu, Ch. Fürst, *3D printing of landscapes: from technical advances to expectations of end-users*, IALE 2019 World Congress, Milano.
3. T. Cioaca, B. Dumitrescu, M.S. Stupariu, *Riemannian Filters for Multi-variate Mesh Signals*, International Conference on Computer Graphics Theory and Applications - GRAPP 2017.
4. M.S. Stupariu, I. Pătru-Stupariu, C. Timofte, *3D Landscape Metrics: what and how can be computed?*, IALE 2017, European Landscape Ecology Congress, Gent, 2017.
5. M.S. Stupariu, A. Pleșoianu, I. Pătru-Stupariu, *3D landscape pattern analysis using wavelets based techniques*, IALE 2017, European Landscape Ecology Congress, Gent.
6. A.I. Pleșoianu, M.S. Stupariu, I. Stoicescu, I. Pătru-Stupariu, *Wavelets-based techniques and GIS tools for identifying fine scale landscape patterns*, ESRI International User Conference, San Diego, California, 2016.
7. M.S. Stupariu, *An Application of Triangle Mesh Models in Detecting Patterns of Vegetation Paper*, International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision WSCG, Pilsen, 2016.
8. M.S. Stupariu, I. Pătru-Stupariu, *Discrete curvatures for triangle meshes derived from terrain point cloud data*, Symposium on Geometry Processing SGP, Graz, 2015.
9. M.S. Stupariu, *A local geometry based algorithm for point cloud edge classification*, European Workshop on Computational Geometry, EuroCG, Ljubljana, 2015.
10. T. Cioacă, B. Dumitrescu, M.S. Stupariu, I. Pătru-Stupariu, M. Năpăruș, I. Stoicescu, A. Peringer, A. Buttler, F. Golay, *Heuristic-driven Graph Wavelet Modeling of Complex Terrain*, International Conference on Graphic and Image Processing Beijing 2014.

11. M.S. Stupariu, *On the Use of Discrete Curvatures in Terrain Modeling*, 8th International Conference Curves and Surfaces, Paris, 2014.
12. F. Golay, F. Porté-Agel, A. Buttler, M.S. Stupariu, M. Năpăruș, I. Pătru-Stupariu, A. Peringer, *Multi-resolution analysis as a tool for integrating wind and vegetation modeling over complex terrains*, AGILE (Association of Geographic Information Laboratories for Europe) Conference, Leuven, 2013.
13. I. Pătru-Stupariu, M.S. Stupariu, R. Cuculici, *On the use of discrete-geometry differential operators in the study of landscapes*, GEOBIA (Geographic Object Based Image Analysis), Gent, 2010.
14. I. Pătru-Stupariu, M.S. Stupariu, R. Cuculici, *Geometric techniques in quantifying landscape irregularities*, in J. Breuste, M. Kozova, M. Finka (Eds.): *European Landscapes in Transformation Challenges for Landscape Ecology and Management*, European IALE Conference, Salzburg, 2009.
15. M.S. Stupariu, *Representations of quivers and associated gauge-theoretical problems*, Riemannian Geometry and Applications, Dedicated to the 65-th birthday of Prof. Dr. Bang-Yen Chen, Brașov, 2008.
16. M.S. Stupariu, *Concepte de stabilitate pentru reprezentări de tolbe (Stability concepts for representations of quivers)*, Euler anniversary session, Faculty of Mathematics, University of Bucharest, 2007.
17. M.S. Stupariu, *Utilizarea limbajului informatic în predarea algebrei liniare și a geometriei (Using informatics in linear algebra and geometry teaching)*, Workshop on Romanian university education, Constanța, 2007.
18. M.S. Stupariu, *Some properties of the  $(G, \rho)$ -monopoles*, Riemannian Geometry and Applications, Dedicated to the Memory of Prof. Radu Roșca, Brașov, 2007.
19. C. Voica, M.S. Stupariu, *Reprezentări și limbaje în algebra liniară (Representations and languages in linear algebra)*, RMS Conference, Bucharest, 2007.
20. C. Voica, M.S. Stupariu, *Difficulties in understanding vector spaces*, MASSEE International Congress on Mathematics, Paphos, Cyprus, 2006.
21. M.S. Stupariu, *Reprezentări mentale ale conceptelor de algebră liniară (Mental representations of basic linear algebra notions)*, RMS (Romanian Mathematical Society) Conference, Bucharest, 2006.
22. I. Pătru-Stupariu, M.S. Stupariu, *Modele matematice utilizate pentru evaluarea în teren a peisajului (Mathematical models in terrain landscape assessment)*, Annual workshop of the Faculty of Geography, University of Bucharest, 2006.
23. C. Voica, M.S. Stupariu, *Teaching vector spaces*, The 13th Conference on Applied and Industrial Mathematics CAIM, Pitești, 2005.

24. M.S. Stupariu, *Vortex-type equations coupled with Higgs fields*, Zweites deutsch-rumänisches Seminar über Geometrie, Dortmund, 2000.
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