

## LIST OF PUBLICATIONS (selection)

Nicolae Adrian Secelean

### Habilitation thesis

“*New results in the theory of countable iterated function systems*”, Babes-Bolyai University of Cluj-Napoca, 2015

### Ph.D. thesis

“*Applications of measure theory in the study of fractals*”, Romanian Academy, Bucharest, 2001

### A. Books and book chapters

- C1. Secelean, N.A., Wardowski, D. (2021). *A General Approach on Picard Operators*. In: Cho, Y.J., Jleli, M., Mursaleen, M., Samet, B., Vetro, C. (eds) *Advances in Metric Fixed Point Theory and Applications*. Springer, Singapore. [https://doi.org/10.1007/978-981-33-6647-3\\_20](https://doi.org/10.1007/978-981-33-6647-3_20), 2021, Print ISBN: 978-981-33-6646-6; Online ISBN: 978-981-33-6647-3
- C2. N.A. Secelean, *Countable Iterated Function Systems*, LAP Lambert Academic Publishing, 2013, ISBN-13: 978-3-659-32030-9; ISBN-10: 3659320307, EAN: 9783659320309
- C2 P.T. Crăciunaș, N.A. Secelean, S. Crăciunaș – *Analiză Matematică pe dreapta reală*, Editura ULB, Sibiu, 2010, ISBN 978-606-12-0020-7
- C3 A. Branga, S. Crăciunaș, N.A. Secelean – *Analiză Funcțională și Teoria Aproximării*, Ed. Casa Cărții de Știință, Cluj-Napoca, 2009, ISBN 978-973-133-545-2
- C4 N.A. Secelean, E. De Amo: *Topology: from Fundamentals to Euclidean Spaces*, Editorial Universidad Almería, Spain, 2008, ISBN 978-84-8240-912-2
- C5 L. Ardelean, N. Secelean: *Didactica Matematicii – noțiuni generale; comunicare didactică specifică matematicii*, Editura ULB, Sibiu, 2007, ISBN 978-973-739-497-2
- C6 L. Ardelean, N. Secelean: *Didactica Matematicii – managementul, proiectarea și evaluarea activităților didactice*, Editura ULB, Sibiu, 2007, ISBN 978-973-739-498-9
- C7 N.A. Secelean, *Numărare, statistică, probabilități*, Ed. Credis, 2005, Proiect MEC, ISBN 973-0-04241-1
- C8 N.A. Secelean: *Măsură și Fractali*, Editura ULB, Sibiu, 2002, ISBN: 973-651-456-0
- C9 P.T. Crăciunaș, N.A. Secelean, S. Crăciunaș: *Elemente de Teoria Distribuțiilor*, Ed. Universității “Gheorghe Asachi”, Iași, 2002, ISBN: 973-8292-99-9

- C10 S. Crăciunaș, N.A. Secelean, P.T. Crăciunaș: [\*Analiză Funcțională, noțiuni fundamentale\*](#), Editura ULB, Sibiu, 2000, ISBN: 973-651-103-0
- C11 I. Chițescu, N.A. Secelean: [\*Elemente de Teoria Măsurii și Integralei\*](#), Ed. “România de Măine”, București, 1999, ISBN: 973-582-140-0
- C12 N.A. Secelean: [\*Probleme de Topologie\*](#), Editura ULB, Sibiu, 1995, ISBN: 973-95604-2-9
- C13 S. Crăciunaș, N. Secelean, P. Crăciunaș: [\*Elemente de Topologie\*](#), Editura ULB, Sibiu, 1993, ISBN: 973-95604-6-6

## **B. Articles/studies in extenso, published in journals from the main international scientific flux**

### ***B1. Articles in ISI journals***

1. N.A. Secelean, L. Snoha, Picard Operators and Picard Spaces, [\*Real Anal. Exchange\*](#) Advance Publication 1-10, 2025, <https://doi.org/10.14321/realanalexch.1761460398>
2. Medhi, R., Secelean, N. & Viswanathan, P. [\*Exploring Iterative Dynamics, Invariant Measures, and Ergodicity in  \$\mathcal{F}\$ -Contractive Iterated Function Systems\*](#). *Qual. Theory Dyn. Syst.* **24**, 185 (2025). <https://doi.org/10.1007/s12346-025-01345-4>
3. M. Zhou, G. Li, N. Saleem, O. Popescu, and N.A. Secelean, [\*Fixed point results for generalized convex orbital Lipschitz operators\*](#), *Demonstratio Mathematica*, vol. 57, no. 1, 2024, pp. 20240082, <https://doi.org/10.1515/dema-2024-0082>
4. K.K. Pandey, N.A. Secelean, and P.V. Viswanathan, [\*On bivariate fractal interpolation for countable data and associated nonlinear fractal operator\*](#), *Demonstratio Mathematica*, vol. 57, no. 1, 2024, pp. 20240014. <https://doi.org/10.1515/dema-2024-0014>
5. J. Mathew, S. Mathew, N.A. Secelean, [\*On attractors of type I iterated function systems\*](#), *Journal of Applied Mathematics and Informatics*, 2024, vol. 42, no.3, pp. 583-605 <https://doi.org/10.14317/jami.2024.583>
6. Zhou, M., Secelean, N.A., Saleem, N., Abbas, M. [\*Best proximity points for alternative  \$p\$ -contractions\*](#), *Journal of Inequalities and Applications* **2024**, 4 (2024)
7. N.A. Secelean, D. Wardowski, [\*On a Certain Class of IFSs and Their Attractors\*](#), *Qualitative Theory of Dynamical Systems* (2022) 21:162, p.1-15, <https://doi.org/10.1007/s12346-022-00688-6>
8. N.A. Secelean, D. Wardowski, M. Zhou, [\*The Sehgal's Fixed Point Result in the Framework of  \$\rho\$ -space\*](#). *Mathematics* **2022**, 10(3), 459; <https://doi.org/10.3390/math10030459>

9. I.M. Olaru, N.A. Secelean, [\*A new approach of some contractive mappings on metric spaces\*](#), Mathematics, Vol. 9, Issue 12, Article number 1433, June 2021, DOI: 10.3390/math9121433
10. N. Niralda, S. Mathew, N.A. Secelean, [\*On boundaries of attractors in dynamical systems. Communications in Nonlinear Science and Numerical Simulation\*](#), Vol. 94, March 2021, 105572, DOI: 10.1016/j.cnsns.2020.105572
11. M. Zhou, M.K. Jain, M.S. Khan, N.A. Secelean, [\*Semi-compatible mappings and common fixed point theorems of an implicit relation via inverse C-class functions\*](#), AIMS Mathematics, Vol. 6, Issue 3, 2021: 2636–2652. DOI:10.3934/math.2021160
12. M. Zhou, L. Xiao-lan, N.A. Secelean, [\*Fixed Point Theorems for Generalized Kannan-Type Mappings in a New Type of Fuzzy Metric Space\*](#), Journal of Mathematics, Vol. 2020, Article number: 1712486, Published May 31 2020, p.1-16, DOI:10.1155/2020/1712486
13. N.A. Secelean, D. Wardowski, [\*Expansive mappings on bounded sets and their application to rational integral equations\*](#), Revista de la Real Academia de Ciencias Exactas Físicas y Naturales Serie A-Matemáticas (2020), Volume: 114, Issue: 3, Article Number: 134, p.1-9, DOI: 10.1007/s13398-020-00868-6
14. N.A. Secelean, [\*A New Kind of Nonlinear Quasicontractions in Metric Spaces\*](#), Mathematics 2020, Vol. 8, Issue: 5, Article Number: 661, Published April 2020, DOI: 10.3390/math8050661
15. N.A. Secelean, M. Zhou, [\*Generalized F-Contractions on Product of Metric Spaces\*](#), Mathematics 2019, 7, 1040; 1-8; doi:10.3390/math7111040
16. M. Zhou, X.L. Liub, N.A. Secelean, [\*On coincidence and common fixed point theorems of eight self-maps satisfying an F M-contraction condition\*](#), Nonlinear Analysis: Modelling and Control 2019, Vol. 24, No. 6, 1001–1018
17. N.A. Secelean, S. Mathew, D. Wardowski, [\*New fixed point results in quasi-metric spaces and applications in fractals theory\*](#), Advances in Difference Equations 2019, 2019:177, 1-23, <https://doi.org/10.1186/s13662-019-2119-z>
18. N.A. Secelean, [\*Suzuki  \$\Psi\$  F-contractions and some fixed point results\*](#), Carpathian Journal of Mathematics, Vol. 34 (2018), No.1, 93-102
19. N.A. Secelean, D. Wardowski, [\*New Fixed Point Tools in Non-metrizable Spaces\*](#), Results. Math. Vol. 72 (2017), 919–935, Issue 1-2, DOI: 10.1007/s00025-017-0688-2
20. R. Balu, S. Mathew, N.A. Secelean, [\*Separation properties of \(n, m\)-IFS attractors\*](#), Communications in Nonlinear Science and Numerical Simulation, Vol. 51 (2017), 160-168, <http://doi.org/10.1016/j.cnsns.2017.04.009>
21. N.A. Secelean, D. Wardowski,  [\*\$\psi\$  F-Contractions: Not Necessarily Nonexpansive Picard Operators\*](#), Results. Math., Vol. 70 (2016), Issue 3, 415–431 DOI:10.1007/s00025-016-0570-7

22. N.A. Secelean, [\*Weak F-contractions and some fixed point results\*](#), Bulletin of the Iranian Mathematical Society, Vol. **42** (2016), Issue 3, 779-798
23. N.A. Secelean, [\*Generalized F-iterated function systems on product of metric spaces\*](#), Journal of Fixed Point Theory and Applications, **17** (2015) 575–595, DOI: 10.1007/s11784-015-0235-2
22. E.C. Popa, N.A. Secelean, [\*Estimates for the constants of Landau and Lebesgue via some inequalities for the Wallis ratio\*](#), Journal of Computational and Applied Mathematics, Vol. **269** (2014), 68-74, DOI: 10.1016/j.cam.2014.03.020
23. N.A. Secelean, [\*Generalized Iterated Function Systems on the space  \$I^\infty\(X\)\$\*](#) , Journal of Mathematical Analysis and Applications, Vol. 410, Issue 2, 15. Feb. 2014, 847-858, DOI:10.1016/j.jmaa.2013.09.007
24. N.A. Secelean, [\*Iterated Function Systems consisting of F-contractions\*](#), Fixed Point Theory and Applications, 2013, **2013**:277, DOI:10.1186/1687-1812-2013-277,
25. M. Olaru, N.A. Secelean, [\*Vector comparison operators in cone metric spaces\*](#), Mathematical Report, Vol. **16** (66), No.3 (2014), 431-442
26. N.A. Secelean, [\*Invariant measure associated with a Generalized Countable Iterated Function System\*](#), Mediterranean Journal of Mathematics, **11** (2014), 361-372, DOI 10.1007/s00009-013-0300-2
27. L. Suciuc , W. Majdak , N.A. Secelean, [\*Ergodic properties of operators in some semi-Hilbertian spaces\*](#), Linear and Multilinear Algebra, vol. **61**, issue 2, 2013, p.139-159 DOI: 10.1080/03081087.2012.667094
28. N.A. Secelean, [\*The existence of the attractor of countable iterated function systems\*](#), Mediterranean Journal of Mathematics, No. 1, Vol. **9**, 2012, pp. 61-79 DOI: 10.1007/s00009-011-0116-x,
29. E.C. Popa, N.A. Secelean, [\*On some inequality for the Landau constants\*](#), Taiwanese Journal of Mathematics, Vol.**15**, No.4, August 2011, p. 1457-1462,
30. N.A. Secelean, [\*Continuous dependence on a parameter of the countable fractal interpolation Function\*](#), Carpathian Journal of Mathematics, **27**, 2011, No.1, p.131-141
31. N.A. Secelean, [\*Fractal countable interpolation scheme: existence and affine invariance\*](#), Mathematical Reports, Volume: **13**, Issue: **1**, 2011, p. 75-87,
32. A Mihail, N.A. Secelean, [\*On the connectivity of the attractors of recurrent iterated function systems\*](#), Mathematical Reports, vol. **13(63)**, No. **4**, 2011, p. 363-376,
33. N.A. Secelean, [\*Generalized countable iterated function systems\*](#), Filomat, **25:1** (2011), p.21-36, DOI:10.2298/FIL1101021S,
34. N.A. Secelean: [\*Parameterized curve as attractors of some countable iterated function systems\*](#), Archivum Mathematicum, Tomus 40, 2004, p.287-293 <http://dml.cz/dmlcz/107911>

35. E. de Amo, I. Chițescu, M. Díaz Carrillo, **N.A. Secelean**: [\*A new approximation procedure for fractals\*](#), Journal of Computational and Applied Mathematics, vol. **151**, Issue **2**, 2003, p.355-370, DOI:10.1016/S0377-0427(02)00752-5,

## ***B2. Other articles in journals indexed in international data basis***

1. **N.A. Secelean**: [\*Approximation of the attractor of a countable iterated function system\*](#), General Mathematics, nr.**3**, vol.**17**, 2009, p.221-231 ([Zbl 1199.28033](#))

2. M. Bezzarga, E. Moldoveanu, **N. Secelean**: *Dual Resolvent for Semi-dynamical Systems*, Buletin Științific - University of Pitești, Ser. Mathematics and Informatics, Nr. **11**, 2005, p.27-44, ([Zbl 1249.31009](#))

3. **N.A. Secelean**: [\*The fractal interpolation for countable systems of data\*](#), Publications of the Faculty of Electrical Engineering (actually Applicable Analysis and Discrete Mathematics), University of Belgrade, vol.**14**, 2003, p.11-19 ([Zbl 1090.28006](#))

4. **N.A. Secelean**: [\*Some continuity and approximation properties of a countable iterated function system\*](#), Mathematica Pannonica, vol.**14**, nr.2, 2003, p.237-252 ([Zbl 1048.37021](#))  
[http://ttk.pte.hu/mii/html/pannonica/index\\_elemei/vol\\_14\\_2\\_cont.htm](http://ttk.pte.hu/mii/html/pannonica/index_elemei/vol_14_2_cont.htm)

5. **N.A. Secelean**: *A sufficient condition for the existence of invariant set for a system of functions*, Analele Universității București, vol.**51**, 2002, p. 189-196 ([Zbl 1084.47526](#))

6. **N.A. Secelean**: [\*The Invariant Measure of a Countable Iterated Function System\*](#), Seminarberichte aus dem Fachbereich Mathematik, Band **73**, 2002, p.3-10

7. **N.A. Secelean**: [\*The Hausdorff Dimension and the Similarity in Case of Countable Iterated Function System\*](#), Seminarberichte aus dem Fachbereich Mathematik, Band **73**, 2002, p.41-52

8. **N.A. Secelean**: *The code space associated with a Countable Iterated Function System*, General Mathematics, vol. **9**, nr.3-4, 2001, p.61-70 ([Zbl 1073.37506](#))

9. **N.A. Secelean**: [\*Any compact subset of a metric space is the attractor of a CIFS\*](#), Bull. Math. Soc. Sc. Math. Roumanie, tome **44** (92), nr.3, 2001, p.77-89, ([Zbl 1052.37012](#))

10. **N.A. Secelean**: [\*Countable Iterated Function Systems\*](#), Far East Journal of Dynamical Systems **3**(2), 2001, p.149-167 ([Zbl 1004.28002](#))  
[http://www.pphmj.com/article.php?act=art\\_view&search=secelean](http://www.pphmj.com/article.php?act=art_view&search=secelean)

11. **N.A. Secelean**: [\*Generation of some fractals\*](#), Bull. Math. Soc. Sc. Math. Roumanie, tome **44** (92), nr.1, 2001, p.77-89, ([Zbl 1049.28008](#))

12. **N.A. Secelean**: *Some convergence properties in the Hausdorff-Pompeiu metric*, General Mathematics, vol. **8**, nr.1-2, 2000, p.45-53 ([Zbl 1240.54100](#))  
<http://depmath.ulbsibiu.ro/genmath/gm/vol8/cuprins8.html>

13. **N.A. Secelean**: *Some sets of non-integral dimension*, Mathematical Reports, tom.49, nr.3-4, 1997, p.267-276 ([Zbl 0885.28004](#))

14. **N.A. Secelean**: *Some dimension results for Cartesian product sets*, General Mathematics, vol. 2, nr.3, 1994, p.127-132

### *B3. Other scientific contributions*

- Acu, A. Bucur, **N.A. Secelean**, E. Drăghici, *Proceedings of the 6th annual conference of the Romanian Society of Mathematical Sciences, Sibiu, Romania, May 23-25, 2002. Vol. I.*, Editura ULB, Sibiu, xiv, 2003, 368 p. ISBN: 973-651-634-2 ([Zbl 1015.00014](#));
- D. Acu, A. Bucur, **N.A. Secelean**, E. Drăghici, *Proceedings of the 6th annual conference of the Romanian Society of Mathematical Sciences, Sibiu, Romania, May 23--25, 2002. Vol.II.* Editura ULB, Sibiu, ii, 2003, 192 p. ISBN: 973-651-649-0 ([Zbl 1015.00015](#));

### **D. Grants / projects won through competition**

- Contract/grant de cercetare științifică cu ULBS nr. 5/2015: *Applications of fixed point results IFS theory*
- Contract/grant de cercetare științifică cu ULBS nr. 3208/2016: *New results in fixed point theory and applications in the study of iterated function systems*
- Contract/grant de cercetare științifică cu ULBS nr. 3073/2017: *Applications of fixed point theory in the study of fractals*
- Contract/grant de cercetare științifică cu ULBS nr. 3441/2018: *New applications of fixed point results in fractals theory*
- Contract/grant de cercetare științifică cu ULBS nr. 4136/2019 financed from Lucian Blaga University of Sibiu & Hasso Plattner Foundation: *Extensions of the contraction mappings on the generalized metric spaces and applications*
- Contract/grant de cercetare științifică cu ULBS nr. 2836/2020 financed from Lucian Blaga University of Sibiu & Hasso Plattner Foundation: *Picard operators on generalized spaces and applications*
- Proiect LBUS-HPI-ERG-2020-07: *Dezvoltarea algoritmilor numerici avansați și a protocoalelor de calcul robuste pentru caracterizarea dimensională și structurală a nanostructurilor*
- Contract/grant de cercetare științifică cu ULBS financed by Lucian Blaga University of Sibiu & Hasso Plattner Foundation research grants LBUS-IRG-2021-07 *Teoreme de punct fix pe spații generalizate cu aplicații în generarea unor fractali*