



PERSONAL INFORMATION

DIANA SAVIN

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WORKPLACE

Institution: Transilvania University of Braşov, Faculty of Mathematics and Informatics, Department of Mathematics and Informatics

PROFESSIONAL EXPERIENCE

Period: 2022 – Present

Position Associate Professor Ph.D. – at DMIN (Department of Mathematics and Informatics), Faculty of Mathematics and Informatics
Employer: Transilvania University of Braşov; Bd-ul Eroilor 29, Romania
<https://mateinfo.unitbv.ro/ro/despre/membrii-departamentului-de-matematica-si-informatica.html>

Sector: Teaching/Research/Academic Management

Period April 2024 - Present

Position Vice Dean of Teaching and Research - Faculty of Mathematics and Informatics

Period 2021-2022

Position Lecturer Ph.D. – Tenured at Department of Mathematics and Informatics, Faculty of Mathematics and Informatics
Employer: Transilvania University of Braşov; Bd-ul Eroilor 29

Period 2005-2021

Position Lecturer Ph.D. – Tenured at Department of Mathematics and Informatics, Faculty of Mathematics and Informatics
Employer: Ovidius University of Constanţa; Bd-ul Mamaia 124, Romania

Period 2002-2005

Position Assistant Professor Ph.D. Candidate – Tenured at DMIN (Department of Mathematics and Informatics), Faculty of Mathematics and Informatics
Employer: Ovidius University of Constanța; Bd-ul Mamaia 124

Period 1996-2002

Position Math teacher (1997-2002) – Andrei Barseanu Economic high school (Tenured Teacher, job obtained after passing a national competition), Brasov, Romania + detachment (since 1998) with a half norm at Dr. Ioan Mesota high school, Brașov, Romania

Math teacher (1996-1997) – Rulmentul high school (Tenured Teacher, job obtained after passing a national competition), Brasov, Romania

Research activity abroad (fellowships)

1. January 4, 2008 – April 1, 2008, post-doctoral position at Central European University from Budapest. Adviser: Tamas Szamuely (senior researcher at A. Renyi Institute of Mathematics, Hungarian Academy of Sciences and full professor at the University degli studi di Pisa).

2. July 14, 2011 – August 14, 2011, visiting researcher fellowship at The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.

3. January 7, 2012 – March 31, 2012, visiting researcher fellowship at Centre de Recerca Matematica, Facultat de Ciències, Universitat Autònoma de Barcelona, Spain.

EDUCATION

1999-2004 - Ph.D. in Mathematics (Algebra / Number Theory), Ovidius University of Constanța, Romania

My Ph.D thesis was discussed and approved by the high commission of the Ministry of Education and Research from Romania in April 2005 and issued in May 2005.

1991-1996– BSc. in Mathematics, University of Bucharest, Faculty of Mathematics, Romania.

Research interests

Algebraic Number Theory:

- Galois theory, algebraic number fields, orders
- Ramification theory in algebraic number fields,
- Class field theory,
- Diophantine Equations,
- Elliptic Curves, L-functions

Associative Algebras (aspects of algebraic number theory):

- Quaternion algebras, orders
- Symbol algebras;
- Other central simple algebras

Combinatorics:

- Fibonacci and Lucas numbers, Pell numbers, Horadam numbers, Leonardo numbers, generating functions, difference equations, etc.

GRANTS

1. Member in the grant A CNCSIS 1075/2005: Algebră computațională și aplicații în geometrie și informatică.
2. Director of the grant: **Workshop on Algebraic and Analytic Number Theory and Their Applications**, Constanta, May 23-24, 2013
(<https://fmi.univ-ovidius.ro/en/cercetare/granturi/>)
(this workshop was supported by UEFISCDI, by the project PN-II-ID-WE-2012-4-161)
(http://old.uefiscdi.ro/userfiles/file/PN%20II_WE%20si%20SSA%202012/WE/R_EZULTATE%20FINALE/lista%20FINALA%20workshop-uri%20_6%20etapa%20-pana%20pe30%20august%202012.pdf).
3. Member in the grant PROWEB (Rețea de formare continuă a cadrelor didactice pentru a utiliza multimedia, instrumentația virtuală și web 2.0 în aria curriculară Matematică și științe ale naturii), 2015, director of the project: Assoc. Prof. Ph.D Eugen Petac.
4. Member in the grant ANCSI-LIT-TH-ST-2016-0020.
5. Member in the grant grant 13L/2017.
6. Member in the grant grant 16L/2018.
7. Member in the grant grant 31L/2019.
8. Member in the grant grant ROSE (2020), director of the project: Lect. Ph.D Constantin Buta.
9. Member in the grant grant ROSE (2021), director of the project: Lect. Ph.D Cosmin Filip

Mobility GRANTS for Participation in International Conferences, workshops, summer schools, scientific seminars abroad, research visits abroad

1. The 17th Czech and Slovak Conference on Number Theory, Malenovice, Czech Republic, September 2005, with a talk.
2. CANT 2006, University of Liege, Belgique, May 2006: Marie Curie Fellowship (with a talk).
3. School and Conference on Analytic Number Theory, April – May 2007, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
4. Summer School and Conference on Mathematics, Algorithms and Proofs (ICTP, Trieste, Italy; 11 - 29 August 2008).
5. CANT 2009, University of Liege, Belgique, May 2009: Marie Curie Fellowship.
6. Sage Days 16-Computational Number Theory, June 22-27, 2009, Barcelona.
7. Advanced School and Workshop on p-adic Analysis and Applications, August – September 2009, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
8. Workshop on Computational Number Theory and Arithmetic Geometry, May 17-21, 2010, Leuven, Belgium.
9. The Fifth RISC/ SCIENCE Training School in Symbolic Computation, June 28 – July 9, 2010, Hagenberg, Austria.
10. Regulators III, July 12-22, 2010, Barcelona.
11. S²AM, Summer School in Algorithmic Mathematics, August 15-21, 2010, Berlin.
12. Research CIMPA school on Number Theory and Algorithms, November 15-26, 2010, Bamako, Mali.
13. School and Conference on Modular Forms and their Applications in Arithmetic, Geometry and Physics, 28 February – 18 March 2011, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
14. International Summer School on the Birch and Swinnerton-Dyer Conjecture, June 26- July 3, 2011, Porto Conte Ricerche, Alghero.
15. School and Workshop on Computational Algebra and Number Theory, June 18-29, 2012, ICTP, Trieste, Italy.

16. Barcelona Number Theory Seminar, Facultat de Matemàtiques, Universitat de Barcelona, January 23-27, 2012, with a talk (<http://stnb.cat/en/seminaris/2012/>).
17. Workshop: Arithmetic of Abelian varieties in families, November 12-16, 2012, EPFL, Lausanne, Switzerland.
18. Workshop: Number Theory, Geometry and Cryptography, July 1-5, 2013, University of Warwick, UK.
19. Algorithmic and enumerative combinatorics summer school, August 18-22, 2014, Hagenberg, Austria.
20. Barcelona Number Theory Seminar, Facultat de Matemàtiques, Universitat de Barcelona, January 26-30, 2015.
21. 29 th Journées Arithmétiques, 6-8 July 2015, Debrecen, Hungary, with a talk (<http://ja2015.math.unideb.hu/abstracts>).
22. 3rd Algorithmic and enumerative combinatorics summer school, August 1-5, 2016, Hagenberg, Austria.
23. International Colloquium of Algebra, Number Theory, Cryptography and Information Security (ANCI'2016), 11-12 November 2016, Taza, Morocco (<http://anci16.byethost8.com/anci-16/>), with a plenary talk.
24. Scientific Seminars, Università degli Studi "G. D'Annunzio" Chieti-Pescara, Dipartimento di Economia, 17-18 July 2017, Pescara, Italy, with 2 talks (https://www.dec.unich.it/documenti/0_uda/1_dec/seminario%20acciario.pdf).
25. Number Theory Conference 2022 in honour of Professors Kálmán Györy, János Pintz and András Sárközy 4-8 July 2022, Debrecen, Hungary, with a talk (<https://ntc2020.math.unideb.hu/>).
26. 32th Journées Arithmétiques, 3-7 July 2023, Nancy, France, with a talk. (<https://dev-icel.univ-lorraine.fr/ad2023/#programme>).
27. School on Number Theory and Physics and Workshop on Number Theory and Physics, ICTP Trieste, Italy, 17-28 June 2024 (<https://indico.ictp.it/event/10485>; <https://indico.ictp.it/event/10637/>).
28. March 23 - April 1, 2025, research visit to the Department of Mathematics „Tullio Levi-Civita”, University Degli Studi of Padova, Italy.
29. Conference on rings and polynomials, Institute of Analysis and Number Theory, TU Graz, Austria, 13-17 July 2025, with a talk (<http://integer-valued.org/rings2025/index.html>).

ARTICLES

published in Web of
Science indexed
journals

1. D. Savin, *About a Diophantine Equation*, An. Șt. University „Ovidius“ of Constanta, Romania, Ser. Mat., XVII (2009), f.3, p.241-250 (<https://www.anstuocmath.ro/volume-xvii-2009-fascicola-3.html>).
2. D. Savin, C. Flaut, C. Ciobanu, *Some properties of the symbol algebras*, Carpathian Journal of Mathematics vol. 25, No. 2 (2009), p. 239-245 (<https://www.carpathian.cunbm.utcluj.ro/project/vol-25-2009-no-2/>).
3. D. Savin, M. Ștefănescu, *A necessary condition for certain Primes to be written in the form $x^q + ry^q$* , Journal of Algebra and Its Applications (World Scientific), vol. 10, no.3 (June 2011), p. 435-443 (<https://www.worldscientific.com/doi/abs/10.1142/S0219498811004665>).
4. D. Savin, *About some split central simple algebras*, An. Șt. University „Ovidius“ of Constanta, Romania, Ser. Mat. XXII (2014), f.1, p.263-272 (<https://www.anstuocmath.ro/volume-xxii-2014-fascicola-1.html>).
5. C. Flaut, D. Savin, *Some properties of the symbol algebras of degree 3*, Math. Reports, vol. 16 (66), no. 3 (2014), 443 – 463 (http://imar.ro/journals/Mathematical_Reports/Mrc14_3.pdf).

6. C. Flaut, **D. Savin**, *Some examples of division symbol algebras of degree 3 and 5*, **Carpathian Journal of Mathematics**, vol. **31**, No. 2 (2015), p. 197-204 (<https://www.carpathian.cunbm.utcluj.ro/project/vol-31-2015-no-2/>).
7. **D. Savin**, *Some properties of Fibonacci numbers, Fibonacci octonions, and generalized Fibonacci-Lucas octonions*, **Advances in Difference Equations (Springer)** (2015), 2015:298, DOI 10.1186/s13662-015-0627-z x (<https://link.springer.com/article/10.1186/s13662-015-0627-z>).
8. C. Flaut, **D. Savin**, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, **Advances in Applied Clifford Algebras (Springer)**, December 2015, Volume **25**, Issue 4, p 853-862 (<https://link.springer.com/article/10.1007/s00006-015-0542-0>).
9. **D. Savin**, *About division quaternion algebras and division symbol algebras*, **Carpathian Journal of Mathematics**, vol. **32**, No. 2 (2016), p. 233 – 240 (<https://www.carpathian.cunbm.utcluj.ro/project/vol-32-2016-no-2/>).
10. **D. Savin**, *About Special Elements in Quaternion Algebras Over Finite Fields*, **Advances in Applied Clifford Algebras (Springer)**, vol. **27**, June 2017, Issue 2, pp. 1801-1813.
11. **D. Savin**, *About split quaternion algebras over quadratic fields and symbol algebras of degree n*, **Bull. Math. Soc. Sci. Math. Roumanie**, Tome 60 (108) No. 3, 2017, p. 307- 312 (<https://ssmr.ro/bulletin/volumes/60-3/index.html>).
12. C. Flaut, **D. Savin**, *Some special number sequences obtained from a difference equation of degree three*, **Chaos, Solitons & Fractals (Science Direct, Elsevier)**, vol. 106, January 2018, p 67-71 (<https://www.sciencedirect.com/science/article/abs/pii/S0960077917304708>).
13. V. Acciaro and **D. Savin**, *Computing normal integral bases of abelian number fields*, **JP Journal of Algebra, Number Theory and Applications**, vol. 40, Issue 6, December 2018, p. 923-943 (<http://www.pphmj.com/abstract/12237.htm>).
14. C. Flaut, **D. Savin**, *Some remarks regarding l- elements defined in algebras obtained by the Cayley–Dickson process*, **Chaos, Solitons & Fractals (Science Direct, Elsevier)**, vol. 118, January 2019, p 112-116 (Impact factor 2019: 3,764) (<https://www.sciencedirect.com/science/article/abs/pii/S0960077918308294>).
15. S.G. Rayaguru, **D. Savin**, G.K. Panda, *On Some Horadam Symbol Elements*, **Notes on Number Theory and Discrete Mathematics**, vol. 25, July 2019, no. 2, p. 91—112 (<http://nntdm.net/volume-25-2019/number-2/91-112/>).
16. C. Flaut, **D. Savin**, G. Zaharia, *Properties and applications of some special integer number sequences*, **Mathematical Methods in the Applied Sciences** **2021**, 44, p. 7442–7454, DOI: 10.1002/mma.6257, <https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.6257>
17. N. Minculete, **D. Savin**, *Some Properties of Extended Euler’s Function and Extended Dedekind’s Function*, **Mathematics MDPI** **2020**, 8, 1222; doi:10.3390/math8081222, p.1-10, www.mdpi.com/journal/mathematics

18. N. Minculete, **D. Savin**, *Some generalizations of the functions τ and $\tau^{(e)}$ in algebraic number fields*, **Expositiones Mathematicae** (Science Direct, Elsevier), vol.39 (2021), p.344-353
<https://doi.org/10.1016/j.exmath.2020.07.001>
<https://www.sciencedirect.com/science/article/abs/pii/S0723086920300347>.
19. V. Acciaro, **D. Savin**, M. Taous and A. Zekhnini, *On quaternion algebras that split over specific quadratic number fields*, **Italian Journal of Pure and Applied Mathematics**, issue 47 (2022), p. 91-107
https://ijpam.uniud.it/online_issue/202247/07%20Acciaro-Savin-Taous-Zekhnini.pdf.
20. V. Acciaro, **D. Savin**, M. Taous and A. Zekhnini, *On quaternion algebras over the composite of quadratic number fields*, **Glasnik Matematički**, vol. 56, no. 1 (2021), p. 63-78, <https://doi.org/10.3336/gm.56.1.05>
https://web.math.pmf.unizg.hr/glasnik/vol_56/no1_05.html.
21. N. Minculete, **D. Savin**, *Some properties of Euler's function and of the function τ and their generalizations in algebraic number fields*, **Mathematics** MDPI 2021, 9, 1710,
<https://doi.org/10.3390/math9151710>;
https://www.mdpi.com/2227-7390/9/15/1710?type=check_update&version=1
22. V. Acciaro, **D. Savin**, M. Taous and A. Zekhnini, *On quaternion algebras over some extensions of quadratic number fields*, **Boletín de la Sociedad Matemática Mexicana**, vol. 27, issue 3, November 2021, p. 1-7,
<https://link.springer.com/article/10.1007/s40590-021-00365-9>
23. C. Flaut, **D. Savin**, *Some properties of the norm in a division quaternion algebra*, **Mathematical Methods in the Applied Sciences**, vol. 45, issue 18 (2022), p. 12077-12088, <https://doi.org/10.1002/mma.7502>
<https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.7502>
24. D. Piciu, **D. Savin**, *Residuated Lattices with Noetherian Spectrum*, **Mathematics** MDPI 2022, 10, 1831,<https://doi.org/10.3390/math10111831>
<https://www.mdpi.com/2227-7390/10/11/1831>).
25. **D. Savin**, *Some diagonalizable matrices, connected with difference equations of degree 3*, **Journal of Discrete Mathematical Sciences & Cryptography**, Vol. 25 Issue 8 (2022), p. 2765-2771
<https://www.tandfonline.com/doi/abs/10.1080/09720529.2022.2059921?src=>).
26. N. Minculete, **D. Savin**, *About the Entropy of a Natural Number and a Type of the Entropy of an Ideal*, **Entropy** MDPI 2023, vol.25, Issue 4, 554; <https://doi.org/10.3390/e25040554> (<https://www.mdpi.com/1099-4300/25/4/554>).
27. E. Tan, **D. Savin**, S.Yilmaz, *A New Class of Leonardo Hybrid Numbers and Some Remarks on Leonardo Quaternions over Finite Fields*, **Mathematics** MDPI 2023, 11, 4701, <https://doi.org/10.3390/math11224701>
<https://www.mdpi.com/2227-7390/11/22/4701>).
28. **D. Savin**, *The lattice of ideals of certain rings*, **Boletín de la Sociedad Matemática Mexicana**, vol. 31, issue 4, March 2025, p.1-13
<https://link.springer.com/article/10.1007/s40590-024-00680-x>).

29. D. Savin, *Division quaternion algebras over some cyclotomic fields*, **Communications in algebra**, vol. 53, issue 6, June 2025, p.2232-2246 (<https://www.tandfonline.com/toc/lagb20/53/6>).

30. D. Savin, E. Tan, *On companion sequences associated with Leonardo quaternions : Applications over finite fields*, **Journal of Information and Optimization Sciences**, vol. 46, issue 5, 2025, p.1569-1585 (<https://www.tarupublications.com/doi/10.47974/JIOS-1836>).

Books:

1. A. Bărbulescu, D. Savin, *234 problems solved of Complex Analysis*, Edit. Sitech, Craiova, 2006, 201 p. (in Romanian).
2. D. Savin, M. Ștefănescu, *Lectures of Arithmetic and Number theory*, Edit. Matrix Rom, 2008, 314 p. (in Romanian).

Personal skills:

Mother tongue: Romanian

Other languages:

English: Listening: B1, Reading: B1, Speaking: B1, Spoken interaction: B1, Writing: B1

French: Listening: A1, Reading: A1, Speaking: A1, Spoken interaction: A1, Writing: A1

Italian: Listening: A1, Reading: A1, Speaking: A1, Spoken interaction: A1, Writing: A1

Communication skills:

Job-related skills

- ☐ Good communication skills acquired through personal experience as vice dean
- ☐ Solid knowledge in the teaching field
- ☐ Assessing students' progress using a variety of tools

Computer skills:

- ☐ Good knowledge of Microsoft Office™ tools
- ☐ Good knowledge of mathematical software; MAGMA
- ☐ Good knowledge of LATEX environment

Additional information

☐ Publications:

- Over 50 published articles, of which 30 are indexed in Web Of Science

☐ Hirsh Index:

- Google Scholar = 10, Web of Science = 7, Scopus=7

Editorial skills

- 2021 – Present: managing editor at the journal Bulletin of Transilvania University of Braşov, Series III: Mathematics and Computer Science (http://webbut.unitbv.ro/index.php/Series_III/Editorial_Board)
- 2021 – Present: topic editor at the journal Mathematics (MDPI) (<https://www.mdpi.com/journal/mathematics>)
- Guest editor at the journal Mathematics (MDPI), for the special issue Algebraic, Analytic, and Computational Number Theory and Its Applications (https://www.mdpi.com/journal/mathematics/special_issues/algebraic_analytic_computational_number_theory)
- July 2013 – February 2021: managing editor at the journal Analele Ştiinţifice ale Universităţii Ovidius din Constanţa, seria de Matematică (<https://www.anstuocmath.ro/former-editors.html>)
- J. Guàrdia, N. Minculete, **D. Savin**, M. Vela, A. Zekhnini, editors of the book *New Frontiers in Number Theory and Applications*, Springer 2024 (<https://link.springer.com/book/9783031519581>).

Organized conferences

- 1. International Conference on Mathematics and Computer Science** (MACOS 2024), June 13-15, 2024, Transilvania University, Braşov, Romania (**member in the Organizing Committee**) (<https://macos.unitbv.ro/>).
- 2. International Conference on Mathematics and Computer Science** (MACOS 2022), September 15-17, 2022, Transilvania University, Braşov, Romania (**member in the Organizing Committee**) (<https://mateinfo.unitbv.ro/ro/admitere/admitere-masterat/524-macos2022-organizing.html>).
- 3. Sesiune de Comunicari Matematice**, Ovidius University, December 5, 2020 (**member in the Scientific Committee**) (<https://fmi.univ-ovidius.ro/sesiunea-de-comunicari-matematice-2020/>).
- 4. Transient Transcendence in Transylvania**, Braşov, Romania, May 13–17, 2019 (**member in the Local Organizing Committee**) (<https://specfun.inria.fr/bostan/trans19/>).
- 5. Sesiune de Comunicari Matematice**, Ovidius University, May 11, 2019 (**member in the Scientific Committee**) (<http://math.univ-ovidius.ro/default.aspx?cat=SCM&item=2019>).
- 6. International Conference on Mathematics and Computer Science** (MACOS 2018), June 14-16 2018, Transilvania University, Braşov, Romania (**member in the Organizing Committee**)
- 7. International Colloquium of Algebra, Number Theory, Cryptography and Information Security (ANCI'2016)**, 11-12 November 2016, Taza, Morocco (**member in the International Scientific Committee**) (<http://anci16.byethost8.com/anci-16/>).
- 8. International Conference on Mathematics and Computer Science (2nd Edition -MACOS 2016)**, September 8-10, 2016, Transilvania University, Braşov, Romania (**member in the Organizing Committee**).
- 9. International Conference on Creative Collaboration through Supportive Technologies (ICCCST 2015) ProWeb Workshop**, July 24, 2015, Constanta, Romania (**member in the Program Committee**).

10. **Conference in the honor of Professor Ravi P Agarwal**, Constanta, 10 July 2015, Ovidius University, Constanta (**member in the Organizing Committee**).
11. **International Conference on Mathematics and Computer Science (MACOS 2014)**, June 26-28 2014, Transilvania University, Braşov, Romania (**member in the Organizing Committee**).
12. **Workshop on Algebraic and Analytic Number Theory and Their Applications**, Constanta, May 23-24, 2013 (**main organizer**) (this workshop was supported by _UEFISCDI, by the project PN-II-ID-WE-2012-4-161).
13. **A new approach in theoretical and applied methods in algebra and analysis**, Constanta, April 04 – 06, 2013 (**member in the Organizing Committee**), (<http://amaa-2013.wikispaces.com/home/>).
14. **Science Days**, Constanta, April 01 – 03, 2013 (**member in the Organizing Committee**)(<http://math.univovidius.ro/Doc/Evenimente/20130401/AnuntSD.pdf>)

Data: 5.10.2025

Assoc. Prof. Diana Savin

