

# **CURRICULUM VITAE**

**Diana Savin**

## **PERSONAL DATA**

Date of birth: 20. 10. 1972

Nationality: ROMANIAN

Full name/ address of permanent Institution:

Department of Mathematics and Computer Science

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## **EDUCATION**

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

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

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

## **EMPLOYMENT**

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

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

high school, Brasov, Romania;

2002 – 2005: Teaching assitant - Faculty of Mathematics and Computer Science, Ovidius University of  
Constanta

2005 – 2021: Senior Lecturer - Faculty of Mathematics and Computer Science, Ovidius University of  
Constanta.

2021-present: Senior Lecturer - Faculty of Mathematics and Computer Science, Transilvania University of  
Braşov.

## **RESEARCH INTERESTS**

**Algebraic Number Theory:**

- Algebraic number fields, Galois theory,

- 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, generating functions, difference equations, etc.

## RESEARCH ACTIVITIES ABROAD

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).
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 Matemàtica, Facultat de Ciències, Universitat Autònoma de Barcelona, Spain.

## GRANTS

1. **Member in the grant A CNCSIS 1075/2005: Algebra computationally and applications in geometry and informatics.**
2. **Director of the grant: Workshop on Algebraic and Analytic Number Theory and Their Applications**, Constanta, May 23-24, 2013 (<http://math.univ-ovidius.ro/Workshop/2013/Number-Theory/>) (this workshop was supported by [UEFISCDI, by the project PN-II-ID-WE-2012-4-161](#)) ([http://uefiscdi.gov.ro/userfiles/file/PN%20II\\_WE%20si%20SSA%202012/WE/REZULTATE%20FINAL E/lista%20FINAL A%20workshop-uri%20\\_6%20etapa%20-pana%20pe30%20august%202012.pdf](http://uefiscdi.gov.ro/userfiles/file/PN%20II_WE%20si%20SSA%202012/WE/REZULTATE%20FINAL E/lista%20FINAL A%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**, director of the project: Assoc. Prof. Ph.D Cristina Flaut.
5. **Member in the grant** grant 13L/2017, director of the project: Assoc. Prof. Ph.D Cristina Flaut.
6. **Member in the grant** grant 16L/2018, director of the project: Assoc. Prof. Ph.D Cristina Flaut.
7. **Member in the grant** grant 31L/2019, director of the project: Assoc. Prof. Ph.D Cristina Flaut.
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

1. CANT 2006, University of Liege, Belgique, May 2006: Marie Curie Fellowship.
2. School and Conference on Analytic Number Theory, April – May 2007, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
3. Summer School and Conference on Mathematics, Algorithms and Proofs (ICTP, Trieste, Italy; 11 - 29 August 2008).
4. CANT 2009, University of Liege, Belgique, May 2009: Marie Curie Fellowship.
5. Sage Days 16-Computational Number Theory, June 22-27, 2009, Barcelona.
6. Advanced School and Workshop on p-adic Analysis and Applications, August – September 2009, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
7. Workshop on Computational Number Theory and Arithmetic Geometry, May 17-21, 2010, Leuven, Belgium.
8. The Fifth RISC/ SCIENCE Training School in Symbolic Computation, June 28 – July 9, 2010, Hagenberg, Austria.
9. Regulators III, July 12-22, 2010, Barcelona.
10. S<sup>2</sup>AM, Summer School in Algorithmic Mathematics, August 15-21, 2010, Berlin.
11. Research CIMPA school on Number Theory and Algorithms, November 15-26, 2010, Bamako, Mali.
12. 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.
13. International Summer School on the Birch and Swinnerton-Dyer Conjecture, June 26- July 3, 2011, Porto Conte Ricerche, Alghero.
14. School and Workshop on Computational Algebra and Number Theory, June 18-29, 2012, ICTP, Trieste, Italy.
15. Workshop: Arithmetic of Abelian varieties in families, November 12-16, 2012, EPFL, Lausanne, Switzerland.
16. Workshop: Number Theory, Geometry and Cryptography, July 1-5, 2013, University of Warwick.
17. Algorithmic and enumerative combinatorics summer school, August 18-22, 2014, Hagenberg, Austria.
18. Barcelona Number Theory Seminar, Facultat de Matemàtiques, Universitat de Barcelona, January 26-30, 2015.
19. 29 th Journées Arithmétiques, 6-8 July 2015, Debrecen, Hungary (<http://ja2015.math.unideb.hu/abstracts>).
20. 3rd Algorithmic and enumerative combinatorics summer school, August 1-5, 2016, Hagenberg, Austria.
21. International Colloquium of Algebra, Number Theory, Cryptography and Information Security (ANCI'2016), 11-12 November 2016, Taza, Morocco (<http://anci16.byethost8.com/anci-16/>).
22. Transient Transcendence in Transylvania, Braşov, Romania, May 13–17, 2019. (<https://specfun.inria.fr/bostan/trans19/>).

## Organized Conferences:

1. Sesiune de Comunicari Matematice, Ovidius University, December 5, 2020 (member in the Scientific Committee) (<https://fmi.univ-ovidius.ro/sesiunea-de-comunicari-matematice-2020/>).
2. Transient Transcendence in Transylvania, Braşov, Romania, May 13–17, 2019 (member in the Local Organizing Committee) (<https://specfun.inria.fr/bostan/trans19/>).
3. 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>).

**4. International Conference on Mathematics and Computer Science (MACOS 2018)**, June 14-16 2018, Transilvania University, Braşov, Romania (**member in the Organizing Committee**).

**5. 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/>).

**6. International Conference on Mathematics and Computer Science (2<sup>nd</sup> Edition -MACOS 2016)**, September 8-10 2016, Transilvania University, Braşov, Romania (**member in the Organizing Committee**).

**7. International Conference on Creative Collaboration through Supportive Technologies (ICCCST 2015) ProWeb Workshop**, July 24, 2015, Constanta, Romania (**member in the Program Committee**).

**8. Conference in the honor of Professor Ravi P Agarwal**, Constanta, 10 July 2015, Ovidius University, Constanta (**member in the Organizing Committee**).

**9. International Conference on Mathematics and Computer Science (MACOS 2014)**, June 26-28 2014, Transilvania University, Braşov, Romania (**member in the Organizing Committee**).

**9. Workshop on Algebraic and Analytic Number Theory and Their Applications**, Constanta, May 23-24, 2013 (<http://math.univ-ovidius.ro/Workshop/2013/Number-Theory/>) (**main organizer**) (this workshop was supported by [UEFISCDI, by the project PN-II-ID-WE-2012-4-161](http://uefiscdi.gov.ro/userfiles/file/PN%20II_WE%20si%20SSA%202012/WE/REZULTATE%20FINAL%20E/lista%20FINAL%20workshop-uri%20_6%20etapa%20-pana%20pe30%20august%202012.pdf)) (([http://uefiscdi.gov.ro/userfiles/file/PN%20II\\_WE%20si%20SSA%202012/WE/REZULTATE%20FINAL%20E/lista%20FINAL%20workshop-uri%20\\_6%20etapa%20-pana%20pe30%20august%202012.pdf](http://uefiscdi.gov.ro/userfiles/file/PN%20II_WE%20si%20SSA%202012/WE/REZULTATE%20FINAL%20E/lista%20FINAL%20workshop-uri%20_6%20etapa%20-pana%20pe30%20august%202012.pdf)))

**10. A new approach in theoretical and applied methods in algebra and analysis**, Constanta, April 04 – 06, 2013 (<http://amaa-2013.wikispaces.com/home/>) (**member in the Organizing Committee**);

**11. Science Days**, Constanta, April 01 – 03, 2013 (<http://math.univovidius.ro/Doc/Evenimente/20130401/AnuntSD.pdf>) (**member in the Organizing Committee**);

**12. 3rd International Conference on Environmental and Geological Science and Engineering, 2nd International Conference on Manufacturing Engineering, Quality and Production Systems, 3rd International Conference on Maritime and Naval Science and Engineering, WSEAS**, 3-5 September 2010, Constanta, Romania (**member in the Secretariat of the Conference**).

## THE LIST OF THE PUBLISHED WORKS

### I. ISI ARTICLES

1. D. Savin, *About a Diophantine Equation*, **An. Şt. University „Ovidius“ of Constanta**, Romania, Ser. Mat., **XVII** ( 2009 ), f.3, p.241-250.
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.
3. D. Savin, M. Stefanescu, *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 (Impact factor 2011: 0,483).

- 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 (Impact factor 2014: 0,333).
5. C. Flaut, D. Savin, *Some properties of the symbol algebras of degree 3*, **Math. Reports**, vol. **16** (66), no. 3 (2014), 443 – 463 (Impact factor 2014: 0.118).
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 (Impact factor 2015: 0,61).
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 (Impact factor 2015): 0, 297.
8. C. Flaut, D. Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, **Advances in Applied Clifford Algebras (Springer)**, December 2015, Volume **25**, Issue 4, pp 853-862 (Impact factor 2015: 0, 905).
9. D. Savin, *About division quaternion algebras and division symbol algebras*, **Carpathian Journal of Mathematics**, vol. **32**, No. 2 (2016), pp. 233 - 240 (Impact factor 2015: 0,61).
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 (Impact factor 2017: 1,174).
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 (Impact factor 2017: 0,351).
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 (Impact factor 2017: 2,213).
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.
14. C. Flaut, D. Savin, *Some remarks regarding  $(a, b, x_0, x_1)$  numbers and  $(a, b, x_0, x_1)$  quaternions*, accepted in **Ars Combinatoria** (Impact factor 2017: 0.186).
15. 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).
16. 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.
17. C. Flaut, D. Savin, G. Zaharia, *Properties and applications of some special integer number sequences*, accepted in **Mathematical Methods in the Applied Sciences**, DOI: 10.1002/mma.6257, <https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.6257> (Impact factor 2019: 1,626).
18. 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](http://www.mdpi.com/journal/mathematics) (Impact factor 2019: 1,747).
19. N. Minculete, D. Savin, *Some generalizations of the functions  $\tau$  and  $\tau^{(e)}$  in algebraic number fields*, accepted in **Expositiones Mathematicae 2020 (Science Direct, Elsevier)** <https://doi.org/10.1016/j.exmath.2020.07.001>, <https://www.sciencedirect.com/science/article/abs/pii/S0723086920300347> (Impact factor 2019: 0,88).
20. V. Acciaro, D. Savin, M. Taous and A. Zekhnini, *On quaternion algebras that split over specific quadratic number fields* (arXiv:1906.11076), accepted in **Italian Journal of Pure and Applied Mathematics**.
21. V. Acciaro, D. Savin, M. Taous and A. Zekhnini, *On quaternion algebras over the composite of quadratic number fields*, accepted in **Glasnik Matematicki 2020** (Impact factor 2019: 0,554). <https://web.math.pmf.unizg.hr/glasnik/forthcoming.html>

## II. BDI ARTICLES

22. D. Savin, *The use some identitys and inequalitys in problems of combinatorial*, **An. St. University „Ovidius“ of Constanta**, Romania, Ser. Mat., **8** (2000), f.1, p.141-145
23. D. Savin, *On some Diophantine Equations (I)*, **An. Șt. University „Ovidius“ of Constanta**, Romania, Ser. Mat., **10** ( 2002 ), f.1., p.121-134.

24. D. Savin, *On some Diophantine Equations (II)*, **An.Șt.University„Ovidius“ of Constanta**, Romania, Ser. Mat., **10** ( 2002 ), f.2., p.79 - 86.
25. D. Savin, *Systems of Diophantine equations without solutions*, **Proceedings of the International Symposium of Mathematics and its Applications**, November, 6 – 9, 2003, Timișoara, Romania, p. 310-317.
26. D.Savin, *About the systems of Diophantine equations*, **Journal Automation Computers - Applied Mathematics**, vol.13 (2004), Number 1, p.191-196.
27. D. Savin, *On some Diophantine Equations (III)*, **An. Șt. University„Ovidius“ of Constanta**, Romania, Ser. Mat., **12** ( 2004 ), f.1., p.73 - 80.
28. D. Savin, *On the Diophantine Equation  $x^4 - q^4 = py^3$* , in the special conditions, **An. Șt. University „Ovidius“ of Constanta**, Romania, Ser. Mat. **12** ( 2004 ), f.1., p.81-90.
29. D.Savin, A Bărbulescu, *On the Diophantine Equation  $x^4 - q^4 = py^7$* , in special conditions, **Journal Automation Computers - Applied Mathematics**, vol.15 (2006), No 2, p.295-300.
30. D.Savin, *Artin Symbol of the Kummer fields*, **Journal Creative Mathematics and Informatics**, vol. 16 (2007), p. 63-69.
31. D. Savin, *Integers Points of Elliptic Curves*, **Seminar Series in Mathematics (Algebra: 5), Proceedings of the 16<sup>th</sup> National School of Algebra on Elliptic Curves**, 5-12 September 2007, Constanta, Romania, p. 111-122.
32. D. Savin, *Bachet-Mordell's Equations*, **Seminar Series in Mathematics (Algebra: 5), Proceedings of the 16<sup>th</sup> National School of Algebra on Elliptic Curves**, 5-12 September 2007, Constanta, Romania, p. 101-110.
33. D.Savin, *On the Diophantine Equation  $x^4 - q^4 = py^5$* , **Italian Journal of Pure and Applied Mathematics** no.26 (2009), p.103-108.
34. D. Savin, *Some properties of cyclotomic fields and Kummer fields*, **International Journal of Mathematics and Computation**, vol.6, no. M10 (2010), p.22-26.
35. D. Savin, *On the Diophantine Equation  $\frac{x^5 + y^5}{x + y} = 5z^5$* , **Proceedings of the 12th WSEAS Int. Conf. on MATHEMATICAL METHODS, COMPUTATIONAL TECHNIQUES AND INTELLIGENT SYSTEMS (MAMECTIS '10)**, May 3-6, 2010, Sousse, Tunisia.
36. D.Savin, *About the Diophantine Equation  $x^4 - q^4 = py^r$* , **International Journal of Mathematics and Computation**, vol.11, no. J11 (2011), p.21-27.
37. C. Flaut, D. Savin, G. Iorgulescu, *Some properties of Fibonacci and Lucas symbol elements*, **Journal of Mathematical Sciences: Advances and Applications**, vol. 20 (2013), p. 37-43 ([http://scientificadvancespublishers.com/tables\\_contents\\_sciences\\_advances\\_applications.html](http://scientificadvancespublishers.com/tables_contents_sciences_advances_applications.html)).
38. D. Savin, *Fibonacci primes of special forms*, **Notes on Number Theory and Discrete Mathematics**, vol. 20, 2014, no.2, p. 10-19.
39. D. Savin, C. Flaut, *About quaternion algebras and symbol algebras*, **Bull. Univ. Transilvania Brasov, Seria III**, vol 7(56) (2014), no 2, p. 59-64.
40. D. Savin, *Quaternion algebras and symbol algebras over algebraic number field K, with the degree  $[K:Q]$  even*, **Gulf Journal of Mathematics**, Vol 4, Issue 4 (2016), p. 16-21.
41. D. Savin, V. Acciario, *Some split symbol algebras of prime degrees*, accepted in **Proceedings of the Workshop Women In Numbers Europe 3**, Springer, 2021.

**h-index: 5 Web of Science; 7 Google scholar; 5 Scopus**

### III. CITATIONS in ISI journals

1. D. Savin, *On the Diophantine Equation  $x^4 - q^4 = py^3$* , in the special conditions, **Analele Stiintifice ale Universitatii “Ovidius”, Constanta, Ser. Mat.** **12** ( 2004 ), f.1., p.81-90 (MR2204094, Zbl. 1134.11320).



**Cited in**

F. Luca, A. Togbe, *On the Diophantine Equation  $x^4 - q^4 = py^3$* , **Rocky Mountain Journal of Mathematics**, vol. 40, no. 3, (2010) 995-1008.

2. D. Savin, *On the Diophantine Equation  $x^4 - q^4 = py^5$* , Italian Journal of Pure and Applied Mathematics no.26 (2009), p.103-108.

**Cited in**

A. Bajolet, B. Dupuy, F. Luca, A. Togbe, *On the Diophantine equation  $x^4 - q^4 = py^r$* , **Publicationes Mathematicae Debrecen**, 79/3-4 (2011) 269-282.

3. D. Savin, C. Flaut, C. Ciobanu, *Some properties of the symbol algebras*, Carpathian Journal of Mathematics, vol. 25, No. 2 (2009), p. 239-245.

**Cited in**

M. Jafari, Y. Yayli, *Rotation in four dimensions via Generalized Hamilton operators*

**Kuwait Journal of Science**, vol 40 (1) June 2013, p.67-79.

4. D. Savin, *About a Diophantine Equation*, An. Șt. University „Ovidius” of Constanta, Romania, Ser. Mat., XVII (2009), f.3, p.241-250.

**Cited in**

R. Keskin, N. Demitürk, *Solutions of Some Diophantine Equations Using Generalized Fibonacci and Lucas Sequences*, **Ars Combinatoria**, Volume CXI, July, 2013, p.161-179.

5. D. Savin, C. Flaut, C. Ciobanu, *Some properties of the symbol algebras*, Carpathian Journal of Mathematics, vol. 25, No. 2 (2009), p. 239-245.

**Cited in**

M. Akyigit, H. H. Kosal, M. Tosun, *Fibonacci Generalized Quaternions*, **Advances Applied Clifford Algebras**, 24(3), p. 631–641 (2014).

6. D. Savin, *About a Diophantine Equation*, An. Șt. University „Ovidius” of Constanta, Romania, Ser. Mat., XVII (2009), f.3, p.241-250.

**Cited in**

T. Andreescu and D. Andrica, *Equations with Solution in Terms of Fibonacci and Lucas Sequences*, **An. Șt. University „Ovidius” of Constanta**, Romania, Ser. Mat., XXII (2014), f.3, p. 5-12.

7. D. Savin, *About some split central simple algebras*, An. Șt. University „Ovidius” of Constanta, Romania, Ser. Mat. XXII (2014), f.1, p.263-272.

**Cited in**

C. Flaut, *Codes over a subset of Octonion Integers*, **Results Math**, November 2015, Volume 68, Issue 3, pp 345-359.

8. A. Barbulescu, D. Savin, *Some congruences of fibonacci and lucas numbers and properties of fibonacci functions*, Recent Researches in Applied Mathematics and Informatics, Proceedings of the 16th International Conference on Applied Mathematics (AMATH'11), Montreux, Switzerland, December 29-31, 2011, p.129-133.

**Cited in**

K. W'ojcik, *Binomial Transform and Dold Sequences*, **Journal of Integer Sequences**, Vol. 18 (2015), Article 15.1.1, p.1-18.

9. D. Savin, *Some properties of Fibonacci numbers, Fibonacci octonions, and generalized Fibonacci-Lucas octonions*, Advances in Difference Equations (2015), 2015:298, DOI 10.1186/s13662-015-0627-z

**Cited in**

AYZ Wang, F Zhang, *The reciprocal sums of even and odd terms in the Fibonacci sequence*, **Journal of Inequalities and Applications** (Springer), December 2015, 2015:376.

10. D. Savin, *About some split central simple algebras*, An. Șt. University „Ovidius” of Constanta, Romania, Ser. Mat. XXII (2014), f.1, p.263-272.

**Cited in**

C. Flaut, *Codes Over Subsets of Algebras Obtained by the Cayley–Dickson Process*, **Advances Applied Clifford Algebras**, 26 (4), p. 1195–1210 (2016).

11. 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.

**Cited in**

M. Marin, I. Abbas, *Evolution of solutions for dipolar bodies in thermoelasticity without dissipation*, **An. Șt. University „Ovidius” of Constanta**, Romania, Ser. Mat. XXIV (2016), f.1, p.57-82.

12. D. Savin, *Fibonacci primes of special forms*, Notes on Number Theory and Discrete Mathematics, vol. 20, 2014, no.2, p. 10-19.

Cited in

P. Berrizbeitia, R. Chapman, F. Luca, A. Mendoza, *Quadratic forms representing  $p$ th terms of Lucas sequences*, **Journal of Number Theory** 175, 134-139 (2017).

13. C. Flaut, D. Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, Advances in Applied Clifford Algebras, December 2015, Volume 25, Issue 4, pp 853-862.

Cited in

N. Yilmaz, Y. Yazlik, N. Taskara, *On the Bi-Periodic Lucas Octonions*, **Advances in Applied Clifford Algebras**, June 2017, Vol. 27, Issue 2, p. 1927–1937.

14. D. Savin, *Some properties of Fibonacci numbers, Fibonacci octonions, and generalized Fibonacci-Lucas octonions*, Advances in Difference Equations (2015), 2015:298, DOI 10.1186/s13662-015-0627-z

Cited in

N. Yilmaz, Y. Yazlik, N. Taskara, *On the Bi-Periodic Lucas Octonions*, **Advances in Applied Clifford Algebras**, June 2017, Vol. 27, Issue 2, p. 1927–1937.

15. D. Savin, *About a Diophantine Equation*, An. Şt. University „Ovidius“ of Constanta, Romania, Ser. Mat., XVII ( 2009 ), f.3, p.241-250.

Cited in

Ait-Amrane, Lyes; Behloul, Djilali, *On some Diophantine equations involving generalized Fibonacci and Lucas numbers*, **Colloquium Mathematicum**, Vol. 150, Issue 2, p. 257-268, 2017.

16. C. Flaut, D. Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, **Advances in Applied Clifford Algebras (Springer)**, December 2015, Volume 25, Issue 4, pp 853-862

Cited in

S. Halici, A. Karatas, *On a generalization for Fibonacci quaternions*, **Chaos, Solitons & Fractals (Science Direct, Elsevier)**, vol. 98, May 2017, p.178-182.

17. D. Savin, *Fibonacci primes of special forms*, Notes on Number Theory and Discrete Mathematics, vol. 20, 2014, no.2, p. 10-19.

Cited in

Ciolan, F. Luca, P. Moree, *Counting terms  $U_n$  of third order linear recurrences with  $U_n = u^2 + nv^2$* , **Journal of the Ramanujan Mathematical Society**, vol 32, Issue: 2, p. 165-183 (2017).

18. C. Flaut, D. Savin, *Some special number sequences obtained from a difference equation of degree three*, Chaos, Solitons & Fractals, vol. 106, January 2018, p 67-71.

Cited in

W. Florek, *A class of generalized Tribonacci sequences applied to counting problems*, **Applied Mathematics and Computation**, vol. 338, December 2018, p. 809-821.

19. D. Savin, *About Special Elements in Quaternion Algebras Over Finite Fields*, Advances in Applied Clifford Algebras, vol. 27, June 2017, Issue 2, pp. 1801-1813

Cited in

S. Yamaç Akbiyik, M. Akbiyik, S. Yüce, *On metallic ratio in  $Z_n$* , accepted in **Mathematical Methods in the Applied Sciences**, vol: 42 Issue: 16 Special Issue: SI Pages: 5535-5550.

20. D. Savin, *Some properties of Fibonacci numbers, Fibonacci octonions, and generalized Fibonacci-Lucas octonions*, Advances in Difference Equations (2015), 2015:298, DOI 10.1186/s13662-015-0627-z

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21. D. Savin, *About Special Elements in Quaternion Algebras Over Finite Fields*, Advances in Applied Clifford Algebras, vol. 27, June 2017, Issue 2, pp. 1801-1813

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22. 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.

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23. 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

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24. D. Savin, *On the Diophantine Equation  $x^4 - q^4 = py^5$* , Italian Journal of Pure and Applied Mathematics no.26 (2009), p.103-108.

**Cited in**

M.A.Bennett, *Integers represented by  $x^4 - y^4$  revisited*, **Bulletin of the Australian Mathematical Society**, vol. 103 (no. 1), 2021 (<https://journal.austms.org.au/ojs/index.php/Bulletin/article/view/15239>).

#### IV. CITATIONS in BDI journals

1. D. Savin, C. Flaut, C. Ciobanu, *Some properties of the symbol algebras*, Carpathian Journal of Mathematics, vol. 25, No. 2 (2009), p. 239-245.

**Cited in**

M. Jafari, *Quaternions algebra and its applications*, **International journal of theoretical and applied mathematics**, 2016, 2 (2), p. 79-85.

2. C. Flaut, D. Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, Advances in Applied Clifford Algebras, December 2015, Volume 25, Issue 4, pp 853-862.

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and in

O. Kaya, M. Önder, *On Fibonacci and Lucas Vectors and Quaternions*, **Universal Journal of Applied Mathematics** 6.5 (2018) 156 - 163. doi: 10.13189/ujam.2018.060502.

3. D. Savin, *Some properties of Fibonacci numbers, Fibonacci octonions, and generalized Fibonacci-Lucas octonions*, Advances in Difference Equations (2015), 2015:298, DOI 10.1186/s13662-015-0627-z

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S. Yasarsoy, M. Acikgoz, U. Duran, *A Study on the k-Jacobsthal and k-Jacobsthal Lucas Quaternions and Octonions*, **Journal of Analysis & Number Theory** 6, No. 2, 39-45 (2018).

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Francisco Regis Vieira Alves, *The Quaterniontonic and Octoniontonic Fibonacci Cassini's Identity: An Historical Investigation with the Maple's Help*, **International electronic journal of mathematics education**, e-ISSN: 1306-3030. 2018, Vol. 13, No. 3, 125-138.

#### V. CITATIONS in books

1. C. Flaut, D. Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, Advances in Applied Clifford Algebras, December 2015, Volume 25, Issue 4, pp 853-862.

**Cited in**

S. Halici, *On Bicomplex Fibonacci Numbers and Their Generalization*, Models and Theories in Social Systems, vol. 179, Springer 2019, pp 509-524.

2. D. Savin, *About division quaternion algebras and division symbol algebras*, Carpathian Journal of Mathematics, vol. 32, No. 2 (2016), pp. 233 - 240 .

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S. Halici, *On Bicomplex Fibonacci Numbers and Their Generalization*, Models and Theories in Social Systems, vol. 179, Springer 2019, pp 509-524.

3. D. Savin, *About a Diophantine Equation*, An. Șt. University „Ovidius“ of Constanta, Romania, Ser. Mat., XVII ( 2009 ), f.3, p.241-250.

**Cited in**

T. Andreescu, D. Andrica, *Quadratic Diophantine equations*, Springer 2015.

4. D. Savin, *On the Diophantine Equation  $x^4 - q^4 = py^3$* , in the special conditions, An. Șt. University „Ovidius“ of Constanta, Romania, Ser. Mat. **12** ( 2004 ), f.1., p.81-90.

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T. Andreescu, D. Andrica, *Quadratic Diophantine equations*, Springer 2015.

5. D. Savin, *On some Diophantine Equations (I)*, An. Șt. University „Ovidius“ of Constanta, Romania, Ser. Mat., **10** ( 2002 ), f.1., p.121-134.

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T. Andreescu, D. Andrica, *Quadratic Diophantine equations*, Springer 2015.

6. D. Savin, M. Ștefănescu, *Lectures of Arithmetic and Number theory*, Edit. Matrix Rom, 2008 (in Romanian).

**Cited in**

T. Andreescu, D. Andrica, *Quadratic Diophantine equations*, Springer 2015.

## **VI. 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).

## **VII . BOOKS CHAPTERS**

1. D. Savin, *Special numbers, special quaternions and special symbol elements*, appeared in the book Models and Theories in Social Systems, vol. 179, Springer 2019, ISBN-978-3-030-00083-7 , p. 417-430.
2. C. Flaut, D. Savin, G. Zaharia, Some applications of Fibonacci and Lucas numbers, appeared in the book Algorithms as a Basis of Modern Applied Mathematics, Springer 2021, Online ISBN- 978-3-030-61334-1, p. 119-130.

## **VIII. EDITORIAL WORK**

1. C. Flaut, D. Savin, M. Banescu, S. Barcanescu, N. C. Bonciocat, I. Cristea, S. Dascalescu, J. Guardia, A. Mouhib, S. Plaksa, J. Sandor, V.Shpakivskyi, D. Stefanescu, E. Zaharescu (editors), **Analele Stiintifice ale Universitatii Ovidius din Constanta, seria Matematica, 22(1), 2014** (<http://www.anstuocmath.ro/volume-xxii-2014-fascicola-1> [http://www.anstuocmath.ro/mathematics/vol22-1/Invited\\_Eds.pdf](http://www.anstuocmath.ro/mathematics/vol22-1/Invited_Eds.pdf)).

**Others:**

-July 2013 – February 15, 2021, I was managing editor at **Analele Stiintifice ale Universitatii Ovidius din Constanta, seria Matematica**.

-since October 2020, I am editor at the journal **Mathematics and Computer Science** (Science Publishing Group) (<http://www.mathcomputer.org/editorialboard>).

## **IX. Attending Seminars, Summer Schools, Conferences**

1. The 3<sup>rd</sup> annual Conference of Romanian Society of Mathematical Sciences, Craiova, Romania, 1999, with a talk.

2. The 4<sup>th</sup> annual Conference of Romanian Society of Mathematical Sciences, Constanța, Romania, 2000, with a talk..
3. The 5<sup>th</sup> annual Conference of Romanian Society of Mathematical Sciences, Brasov, Romania, 2001, with a talk..
4. The Seminar of Didactica of Mathematics, Cluj – Napoca, Romania, 2002, with a talk..
5. The 6<sup>th</sup> annual Conference of Romanian Society of Mathematical Sciences, Sibiu, Romania, 2002, with a talk..
6. National School of Algebra (the 10<sup>th</sup> edition), Eforie Nord, Romania, June 2002
7. National School of Algebra (the 11<sup>th</sup> edition), Eforie Nord, Romania, September 2002.
8. The Seminar of Didactica of Mathematics, Cluj – Napoca, Romania, 2003, with a talk..
9. The 7<sup>th</sup> annual Conference of Romanian Society of Mathematical Sciences, Bistrița, Romania, 2003, with a talk..
10. The 10<sup>th</sup> International Symposium of Mathematics and its Applications, Novembre 2003, Timișoara, Romania, with a talk.
11. The Seminar of Didactica of Mathematics, Cluj – Napoca, Romania, 2004, with a talk..
12. The Ninth International Conference on Applied Mathematics, Computers Science and Mechanics, May 2004, Cluj – Napoca / Băișoara, Romania, with a talk.
13. Summer School „Hyperplane Arrangements and Constructible Sheaves“, Constanța, Romania, August 2005.
14. The 17<sup>th</sup> Czech and Slovak Conference on Number Theory, Malenovice, Czech Republic, September 2005, with a talk..
15. The Tenth International Conference on Applied Mathematics, Computers Science and Mechanics, May 2006, Cluj – Napoca / Băișoara, Romania, with a talk..
16. CANT 2006: International School and Conference on Combinatorics, Automata and Number Theory, Liege, Belgique, May 2006, with a talk.
17. Summer School on Cryptography, Vatra Dornei, Romania, August 2006.
18. The 5<sup>th</sup> International Conference on Applied Mathematics, September 2006, Baia Mare, Romania, with a talk..
19. National School of Algebra (the 15<sup>th</sup> edition), Constanta, Romania, September 2006.
20. Commutative algebra and related topics, Constanta, Romania, March, 2007.
21. School and Conference on Analytic Number Theory, 23 April – 11 May 2007, Trieste, Italy (The Abdus Salam International Centre for theoretical Physics), [http://math.ictp.it/math/Activity\\_Single?id=a06193](http://math.ictp.it/math/Activity_Single?id=a06193).
22. The 18<sup>th</sup> Czech and Slovak Conference on Number Theory, Smolenice, Slovakia, August 2007, with a talk.
23. National School of Algebra (the 16<sup>th</sup> edition), Constanta, Romania, September 2007, with two talks.
24. Course “Iwasawa Theory for Elliptic Curves”, May 19th to 23rd, 2008, Facultat de Matematiques i Estadistica of the Universitat Politecnica de Catalunya in Barcelona, Spain.
25. Summer School and Conference on Mathematics, Algorithms and Proofs (ICTP, Trieste, Italy; 11 - 29 August 2008).
26. The 10<sup>th</sup> International Conference of Tensor Society on Differential Geometry and Its Applications and Mathematical Foundations of Information Sciences and Its Applications, Constanta, Romania, September 3-7, 2008, with a talk.
27. Winter School on Explicit Methods in Number Theory, January 26-30, Institute of Mathematics, University of Debrecen.
28. Sage Days 16-Computational Number Theory, June 22-27, 2009, Barcelona.
29. Advanced School and Workshop on p-adic Analysis and Applications, August – September 2009, The Abdus Salam International Centre for theoretical Physics, Trieste, Italy.
30. The 12th WSEAS Int. Conf. on Mathematical Methods, Computational Techniques and Intelligent systems (MAMECTIS '10), May 3-6, 2010, Sousse, Tunisia, with a talk.
31. Workshop on Computational Number Theory and Arithmetic Geometry, May 17-21, 2010, Leuven, Belgium.
32. The Fifth RISC/ SCIENCE Training School in Symbolic Computation, June 28 – July 9, 2010, Hagenberg, Austria.
33. The 6th International Conference: Dynamical System and Applications, July 10-14, 2010, Antalya, Turkey, with a talk.

34. Regulators III, July 14-22, 2010, Barcelona.
35. S<sup>2</sup>AM, Summer School in Algorithmic Mathematics, August 15-21, 2010, Berlin.
36. Research CIMPA school on Number Theory and Algorithms, November 15-26, 2010, Bamako, Mali.
37. School and Conference on Modular Forms and their Applications in Arithmetic, Geometry and Physics, 28 February – 18 March 2011, Trieste, Italy.
38. International Summer School on the Birch and Swinnerton-Dyer Conjecture, June 26- July 3, 2011, Porto Conte Ricerche, Alghero.
39. The 16th WSEAS International Conference on Applied Mathematics (AMATH'11), Montreux, Switzerland, December 29-31, 2011, with a talk.
40. Barcelona Number Theory Seminar, Facultat de Matemàtiques, Universitat de Barcelona, (<http://atlas.mat.ub.es/personals/crespo/STNB2012/stnb2012.pdf>), January 23-27, 2012, with a talk.
41. School and Workshop on Computational Algebra and Number Theory, June 18-29, 2012, ICTP, Trieste, Italy.
42. Workshop: Arithmetic of Abelian varieties in families, November 12-16, 2012, EPFL, Lausanne, Switzerland.
43. A new approach in theoretical and applied methods in algebra and analysis, Constanta, April 04 – 06, 2013, Ovidius University, Constanta, with a paper.
44. Workshop on Algebraic and Analytic Number Theory and Their Applications, Constanta, May 23-24, 2013, Ovidius University, Constanta, with a paper.
45. Workshop: Number Theory, Geometry and Cryptography, July 1-5, 2013, University of Warwick.
46. Frobenius distributions on curves, 24-28 February 2014, CIRM workshop (Marseille, France).
47. International Conference on Mathematics and Computer Science (MACOS 2014), June 26-28 2014, Braşov, Romania, with a talk.
48. Algorithmic and enumerative combinatorics summer school, August 18-22, 2014, Hagenberg, Austria.
49. Barcelona Number Theory Seminar, Facultat de Matemàtiques, Universitat de Barcelona, January 26-30, 2015.
50. 29 th Journées Arithmétiques, 6-8 July 2015, Debrecen, Hungary, with a talk.
51. Conference in the honor of Professor Ravi P. Agarwal, Constanta, 10 July 2015, Ovidius University, Constanta.
52. International Conference on Creative Collaboration through Supportive Technologies (ICCCST 2015) ProWeb Workshop, July 24, 2015, Ovidius University, Constanta, Romania.
53. 3rd Algorithmic and enumerative combinatorics summer school, August 1-5, 2016, Hagenberg, Austria.
54. International Conference on Mathematics and Computer Science (2<sup>nd</sup> Edition -MACOS 2016), September 8-10 2016, Transilvania University, Braşov, Romania, with a talk.
55. International Colloquium of Algebra, Number Theory, Cryptography and Information Security (ANCI'2016), 11-12 November 2016, Taza, Morocco, with a talk (keynote speaker) (<http://anci16.byethost8.com/anci-16/>).
56. Scientific Seminar, 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](https://www.dec.unich.it/documenti/_0__uda/_1__dec/seminario%20acciario.pdf)).
57. International Conference on Mathematics and Computer Science (MACOS 2018), June 14-16 2018, Braşov, Romania, with a talk.
58. Transient Transcendence in Transylvania, Braşov, Romania, May 13–17, 2019 (<https://specfun.inria.fr/bostan/trans19/>).

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