Prof. univ. dr. Cristina FLAUT

Lista de lucrari științifice (ultimii 10 ani)

1. Resurse de învățare și rezultate științifice elaborate de cadrele didactice (Anexa A3.1.7)
Această anexă include si o lista de lucrari cu o selecție de lucrări științifice, structurata după următorul model:

- **A. Teza de doctorat**

  Unele proprietati ale algebrelor neasociative. Studiul unor algebre alternative cu ajutorul subspatiului lor izotop, sustinuta la data de 13 Iulie 2002 la Universitatea "Ovidius" din Constanta de Cristina Flaut

- **B. Cărți și capitole în cărți** publicate în ultimii 10 ani (15)

15. **Cristina Flaut**, Daniel Flaut, Šárka Hošková-Mayerová, Some Aspects Regarding RSA Cryptosystem, in Sarka Hošková-Mayerová, Cristina Flaut, Daniel Flaut, Pavlina Rackova, *Changes and Innovations in Social Systems*, Springer, April, 2025, ISBN: 978-3-031-43505-8, pp.645-657, https://link.springer.com/book/10.1007/978-3-031-43506-5

14. **Cristina Flaut**, Remarks Regarding Special Elements in Algebras Obtained by the Cayley-Dickson Process. A Short Survey, in Sarka Hošková-Mayerová, Cristina Flaut, Daniel Flaut, Pavlina Rackova, *Changes and Innovations in Social Systems*, Springer, April, 2025, ISBN: 978-3-031-43505-8, pp.65-86, https://link.springer.com/book/10.1007/978-3-031-43506-5

13. Sarka Hošková-Mayerová, **Cristina Flaut**, Daniel Flaut, Pavlina Rackova, *Changes and Innovations in Social Systems*, Springer, April, 2025, ISBN: 978-3-031-43505-8

12**. Flaut Cristina**, **Hošková-Mayerová**, Šárka, Vasile Radu, *Some Remarks Regarding Finite Bounded Commutative BCK-Algebras*, in **Hošková-Mayerová**, Šárka, **Flaut**, **Cristina**, **Maturo,** Fabrizio, Algorithms as a Basis of Modern Applied Mathematics, Springer Nature Switzerland AG, ISBN 978-3-030-61334-1, 2021, p.131-140, https://www.springer.com/gp/book/9783030613334

11. **Flaut Cristina**, Savin Diana, Zaharia Geanina, *Some Applications of Fibonacci and Lucas Numbers*, in **Hošková-Mayerová**, Šárka, **Flaut**, **Cristina**, **Maturo,** Fabrizio, Algorithms as a Basis of Modern Applied Mathematics, Springer Nature Switzerland AG, ISBN 978-3-030-

61334-1, 2021, p.119-130, https://www.springer.com/gp/book/9783030613334

10. Hošková-Mayerová, Šárka, **Flaut**, **Cristina**, **Maturo,** Fabrizio, *Algorithms as a Basis of Modern Applied Mathematics*, Springer Nature Switzerland AG, ISBN 978-3-030-61334-1, 2021, https://www.springer.com/gp/book/9783030613334

9. **Flaut**, D , Flaut C., T*he Rural Population of Muntenia in the 1930s: A Brief Analysis Based on Statistical Data*, in **Flaut**, D., **Hošková-Mayerová**, Š., **Ispas**, C., **Maturo**, F., **Flaut** Cristina, Decision Making in Social Sciences: Between Traditions and Innovations, Springer Nature Switzerland AG, DOI

10.1007/978-3-030-30659-5_17 , ISBN, 978-3-030-30658-8, 2020,p. 297-316, https://www.springer.com/gp/book/9783030306588

8. Flaut**, D.,** Hošková-Mayerová**, Š.,** Ispas**, C.,** Maturo**, F.,** Flaut **Cristina**, *Decision Making in Social Sciences: Between Traditions and Innovations*, Springer Nature Switzerland AG, ISBN, 978-3-030-30658-8, 2020, https://www.springer.com/gp/book/9783030306588

7. Cristina Flaut, Editor al Proceedings of the 7th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2018), Noiembrie 2018, AIP Conference Proceedings **2037**, 010002 (2018);

https://aip.scitation.org/toc/apc/2037/1?expanded=2037

https://aip.scitation.org/doi/abs/10.1063/1.5078455

6. Cristina Flaut, Sarka **Hošková-Mayerová, Daniel Flaut,** *Models and Theories in Social Systems*, Springer Nature, 2019, https://www.springer.com/us/book/9783030000837, e-ISBN: 978-3-030-00084-4, ISBN: 978-3-030-00083-7,DOI: 10.1007/978-3-030-00084-4

5. Cristina Flaut, *An algebraic model for real matrix representations. Remarks regarding Quaternions and Octonions*, chapter in the Springer's book series: *Studies in Systems, Decision and Control, Contributed volume:* Cristina Flaut, Sarka **Hošková-Mayerová, Daniel Flaut,** *Models and Theories in Social Systems*, 431-451, Springer Nature, 2019, DOI: 10.1007/978-3-030-00084-4_24 , https://www.springer.com/us/book/9783030000837

4. Ravi P. Agarwal, **Cristina Flaut**, Donal O'Regan, *An Introduction to Real Analysis*, Chapman and Hall/CRC Press-Taylor and Francis Group, Florida 33487, U.S.A., 2018, 277 p, **ISBN 978-0-8153-9685-7**, Catalogue Number K344954, https://www.crcpress.com/An-Introduction-to-Real-Analysis/Agarwal-Flaut-ORegan/p/book/9780815396857 .

3. Ravi P. Agarwal, **Cristina Flaut**, *An Introduction to Linear Algebra*, CRC Press-Taylor and Francis Group, Florida 33487, U.S.A., 2017, **ISBN 978-1-138-62670-6,** https://www.crcpress.com/An-Introduction-to-Linear-Algebra/Agarwal-Flaut/p/book/9781138626706 **.**

2. **Cristina Flaut,** ***Some connections between binary block codes and Hilbert Algebras,*** **chapter in the Springer's book series:** ***Studies in Systems, Decision and Control, Contributed volume:***
Recent Trends in Social Systems: Qualitative Theories and Quantitative Models, 2017, **249-256,** DOI: 10.1007/978-3-319-40585-8_22, WOS:000399117700023, Book DOI: 10.1007/978-3-319-40585-8, ISBN:978-3-319-40585-8; 978-3-319-40583-4, ISSN: 2198-4182**.**
http://www.springer.com/us/book/9783319405834

1. Cristina Flaut, Daniel Flaut, *Notes on some diplomatic cryptosystems used in the 17th and 18th centuries*, chapter in the Springer's book series: *Studies in Systems, Decision and Control, Contributed volume: Recent Trends in Social Systems: Qualitative Theories and Quantitative Models, 2017*, 317-328, **DOI: 10.1007/978-3-319-40585-8_28, WOS:000399117700029, Book DOI: 10.1007/978-3-319-40585-8, ISBN:978-3-319-40585-8; 978-3-319-40583-4, ISSN: 2198-4182. http://www.springer.com/us/book/9783319405834**

- **C. Lucrări indexate ISI/BDI** publicate în ultimii 10 ani (34)

  Articole ISI (30)

1. Cristina Flaut, Dana Piciu, *Commutative Rings Behind Divisible Residuated Lattices*, Mathematics, **12(23)(2024), DOI** 10.3390/math12233867, WOS:001376475700001

2. Calin MF, **Flaut C**, Flaut D, Tusa E, *Study on University Dropouts in the Context of the Romanian Education System Reform*, Revista Romaneasca Pentru Educatie Multidimensionala, 16(3)(2024), September 2024, pp. 32-46, DOI 10.18662/rrem/16.3/881 , WOS:001318544200003

3. **Cristina Flaut**, Andreea Baias, *Some Remarks Regarding Special Elements in Algebras Obtained by the Cayley–Dickson Process over Z_p*, Axioms *3*(6)(2024), martie 2024, **DOI: 10.3390/axioms13060351** ; https://doi.org/10.3390/axioms13060351

4. Cristina Flaut, Dana Piciu, Bianca Liana Berecea, *Some Applications of Fuzzy Sets in Residuated Lattices*, Axioms, 13(2024), 267., DOI 10.3390/axioms13040267 ; https://doi.org/10.3390/ axioms13040267; WOS:001210379400001

5. Mariana Floricica CALIN, **Cristina FLAUT**, Dana PICIU, *Remarks regarding some Algebras of Logic*, Journal of Intelligent & Fuzzy Systems, 45(5)(2023), 8613-8622, WOS: 001099536200094, DOI: 10.3233/JIFS-232815, https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs232815?resultNumber=0&totalResults=1&start=0&q=Mariana+Floricica+Calin%2C+Cristina+FLAUT%2C+Dana+PICIU%2C+Remarks+regarding+some+Algebras+often+Logic&resultsPageSize=10&rows=10

6. **Cristina Flaut**, Ana Nechifor, *Remarks regarding eigenvalues and fixed points in some algebras obtained by the Cayley-Dickson process*, Filomat 37(11)(2023), 3649–3658, DOI 10.2298/FIL2311649F; WOS: 000965678200023 https://doi.org/10.2298/FIL2311649F, https://www.pmf.ni.ac.rs/filomat-content/2023/37-11/37-11-23-18668.pdf

7. Cristina FLAUT, *Some applications of idempotent elements in MV algebras* , Carpathian J. of Math., 39(1)(2023), p. 161-174, WOS: 000895231100001; DOI 10.37193/CJM.2023.01.10 ; https://www.carpathian.cunbm.utcluj.ro/article/some-applications-of-idempotent-elements-in-mv-algebras/

8. **Cristina FLAUT**, Dana PICIU, *Some Examples of BL-Algebras Using Commutative Rings*, *Mathematics*, *10*(24)(2022), 4739, DOI: 10.3390/math10244739 **,** WOS:000904464500001, https://doi.org/10.3390/math10244739

9. **Cristina FLAUT**, Dana PICIU, *Connections between commutative rings and some algebras of logic*, Iranian Journal of Fuzzy Systems, 19(6)(2022), pp. 93-110, WOS:000885481900007**,** DOI: 10.22111/IJFS.2022.7213, https://ijfs.usb.ac.ir/article_7213.html

10. **Cristina FLAUT**, Geanina Zaharia, *Remarks Regarding Computational Aspects in Algebras Obtained by Cayley–Dickson Process and Some of Their Applications*, *Mathematics*, *10*(7)(2022), 1141, DOI: 10.3390/math10071141 , WOS:000781116700001; https://doi.org/10.3390/math10071141

11. Cristina FLAUT, Remus BOBOESCU, *A twisted group algebra structure for an algebra obtained by the Cayley-Dickson process*, Ukraine J of Math, 74(6)(2022), 752-760, DOI 10.1007/s11253-022-02113-2, WOS:000888686500001,
DOI: https://doi.org/10.37863/umzh.v74i6.6949

13. **Cristina Flaut**, Diana Savin, *Some properties of the norm in a division quaternion algebra*, Mathematical Methods in the Applied Sciences, 45(18)(2022), 12077-12088, DOI:10.1002/mma.7502 , WOS:000652005100001, https://doi.org/10.1002/mma.7502

14. **Cristina Flaut**, Diana Savin, Geanina Zaharia, *Properties and applications of some special integer number sequences*, Mathematical Methods in the Applied Sciences, 44(2021), 7442-7454; DOI: 10.1002/mma.6257, https://onlinelibrary.wiley.com/doi/full/10.1002/mma.6257

15**. Cristina Flaut**, Radu Vasile, *Wajsberg algebras arising from binary block codes*, Soft Computing, 24(2020), 6047-6058, DOI: 10.1007/s00500-019-04653-5
https://link.springer.com/article/10.1007/s00500-019-04653-5 ,
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16. **Cristina Flaut**, Sarka Hoskova-Mayerova, A.B. Saeid, Radu Vasile, *Wajsberg algebras of order n(n≤9)*, Neural Computing and Applications, 32(2020), 13301–13312.
https://link.springer.com/article/10.1007/s00521-019-04676-x , DOI: 10.1007/s00521-019-04676-x

17. Cristina Flaut, *Some applications of difference equations in Cryptography and Coding Theory*, Journal of Difference Equations and Applications, 25(7)(2019), 905-920.
https://doi.org/10.1080/10236198.2019.1619713

18. **Cristina Flaut**, Diana Savin, *Some remarks regarding l-elements defined in algebras obtained by the Cayley-Dickson process*, Chaos, Solitons & Fractals, 118(2019), 112-116, January 2019, https://doi.org/10.1016/j.chaos.2018.11.002

19. Cristina Flaut, *Some Remarks About the Levels and Sublevels of Algebras Obtained by the Cayley-Dickson Process*, Algebr Represent Theor, 22(3)(2019), 651-663, June, 2019, DOI: 10.1007/s10468-018-9792-6, http://dx.doi.org/10.1007/s10468-018-9792-6

20. **Cristina Flaut**, Diana Savin, *Some special number sequences obtained from a difference equation of degree three*, Chaos, Solitons & Fractals, 106(2018), 67-71, January 2018, https://doi.org/10.1016/j.chaos.2017.11.015 acceptat in 10 Noiembrie 2017.

21. Arsham Borumand Saeid, **Cristina Flaut**, Sarka Hoskova-Mayerova, Morteza Afshar, Marjan Kuchaki Rafsanjani, *Some connections between BCK-algebras and n-ary block codes*, Soft Computing, 22(1)(2018), 41-46, https://link.springer.com/article/10.1007/s00500-017-2788-z , DOI 10.1007/s00500-017-2788-z

22. **Cristina Flaut**, Vitalii Shpakivskyi, Elena Vlad, *Some remarks regarding h(x) – Fibonacci polynomials in an arbitrary algebra*, Chaos, Solitons & Fractals, **99(2017)**, 32-35, DOI http://dx.doi.org/10.1016/j.chaos.2017.03.040 , http://www.sciencedirect.com/science/article/pii/S0960077917301005

23. Cristina Flaut, *Codes Over Subsets of Algebras Obtained by the Cayley–Dickson Process*, Adv. Appl. Clifford Algebras, **26(4)(2016),** 1195-1210, DOI 10.1007/s00006-016-0645-2, http://link.springer.com/article/10.1007/s00006-016-0645-2

24. A. Borumand Saeid, H. Fatemidokht, **Cristina Flaut,** M. Kuchaki Rafsanjani, *On Codes based on BCK-algebras*, J. Intell. Fuzzy Syst., **29(5)(2015)**, 2133-2137, **DOI:** 10.3233/IFS-151688 http://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs1688

25. **Cristina Flaut**, Diana Savin, *Quaternion Algebras and Generalized Fibonacci-Lucas Quaternions*, DOI: 10.1007/s00006-015-0542-0, Adv. Appl. Clifford Algebras, 25(4)(2015), 853-862, http://link.springer.com/article/10.1007/s00006-015-0542-0 ,

26. Cristina Flaut, *Codes over a subset of Octonion Integers*, Results Math., 68(3)(2015), 348-359, http://link.springer.com/article/10.1007/s00025-015-0442-6 , DOI: 10.1007/s00025-015-0442-6

27. Cristina Flaut, *BCK-algebras arising from block codes*, J. Intell. Fuzzy Syst., 28(4)(2015), 1829-1833, http://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs1469 , DOI: 10.3233/IFS-141469

28. **Cristina Flaut,** Vitalii Shpakivskyi, *An Efficient Method for Solving Equations in Generalized Quaternion and Octonion Algebras*, Adv. Appl. Clifford Algebras, 25(2)(2015), 337-350, http://link.springer.com/article/10.1007/s00006-014-0493-x
DOI: 10.1007/s00006-014-0493-x**,**

29. **Cristina Flaut**, Diana Savin, *Some examples of division symbol algebras of degree 3 and 5*, Carpathian J. Math, 31(2)(2015), 197-204, http://carpathian.ubm.ro/issues/abs_cjm_31_2_197-204.pdf

30. **Cristina Flaut**, Vitalii Shpakivskyi, *Holomorphic functions in generalized Cayley- Dickson algebras*, Adv. Appl. Clifford Algebras, **25(1)(2015),** 95-112, 2013-IF=0.530, – http://link.springer.com/article/10.1007/s00006-014-0479-8 **DOI:** 10.1007/s00006-014-0479-8

Articole BDI (4)

1. Cristina Flaut, Daniel Flaut, Šárka Hošková-Mayerová, Alena Vagaská, *Some aspects regarding secret code creators*, Revista Română de Studii Eurasiatice, an XVII, nr. 1-2/2021, p. 121-136, https://drive.google.com/file/d/1nlosu4lU2rylzclGFATJpP1UCpNnwlBs/view

2. Cristina Flaut, Daniel Flaut, Sarka Hoskova-Mayerova, Radu Vasile, *From Old Ciphers to Modern Communications,* Advances in Military Technology, 1(2)(2019), http://aimt.unob.cz/articles/19_01/1281.pdf January 2019.

3. Cristina Flaut, Vitalii Shpakivskyi, *Some Remarks About Fibonacci Elements In An Arbitrary Algebra*, Bulletin De La Société Des Sciences Et Des Lettres De Łódz, LXV(3)(2015), 63-73, http://www.ltn.lodz.pl/streszczenia/Bulletin-65-3.pdf .

4. Cristina Flaut, Daniel Flaut, *Cryptographic Systems Used in the Romanian Countries between the 15th – 19th Centuries*, în "Asian Journal of Social Sciences & Humanities" (AJSSH), 4(1), February 2015, Leena& Luna International, Oyama, Japan, p. 109-117.

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Ebsco Indexed; http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol.4%281%29/AJSSH2015%284.1-12%29.pdf

http://ejournals.ebsco.com/info/EJSTitles.asp?PageNo=24 http://www.ajssh.leena-luna.co.jp/ajsshvol4n1.php

- **D. Lucrări publicate în reviste/conferințe cu referenți (neindexate)** – din ultimii 10 ani

Nu este cazul

(Pentru lucrările din conferințe, vă rugăm să selectați maximum 20 de articole)

- **E. Brevete** acordate de-a lungul întregii activități

Nu este cazul