

CURRICULUM VITAE

Taras Goy

PERSONAL INFORMATION

Date of birth:	December 24, 1969
Address:	Faculty of Mathematics and Computer Sciences, Department of Differential Equations and Applied Mathematics, Vasyl Stefanyk Carpathian National University, 57 Shevchenko st., Ivano-Frankivsk, Ukraine, 76018; e-mail: taras.goy@pnu.edu.ua

EDUCATION

1986 – 1993	Vasyl Stefanyk Precarpathian National University, Faculty of Mathematics and Physics, <i>student</i>
1993 – 1996	Pidstryhach Institute for Applied Problems of Mechanics and Mathematics of the National Academy of Sciences of Ukraine, Department of Mathematical Physics, <i>post-graduate student</i>
1998	Yu. Fedkovych Chernivtsi State University, <i>PhD degree</i> Title of PhD thesis: Nonlocal value-boundary problems for partial differential equations. Thesis Advisor: Prof. Bohdan Ptashnyk
2018 – 2020	Vasyl Stefanyk Precarpathian National University, Faculty of Mathematics and Computer Sciences, <i>DrSci student</i>

RESEARCH INTERESTS

2020 MS Classification:	11B37 Recurrences; 11B39 Fibonacci and Lucas numbers and polynomials and generalizations; 11B65 Binomial coefficients; factorials; q -identities; 11B83 Special sequences and polynomials; 11C20 Matrices, determinants in number theory; 15A15 Determinants, permanents, traces, other special matrix functions; 15B05 Toeplitz, Cauchy, and related matrices; 15B36 Matrices of integers; 05A10 Factorials, binomial coefficients, combinatorial functions; 11B68 Bernoulli and Euler numbers and polynomials; 40A05 Convergence and divergence of series and sequences; 33Bxx Elementary classical functions
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PROFESSIONAL EXPERIENCE**Academic Positions:**

1995 – 1996	Pidstryhach Institute for Applied Problems of Mechanics and Mathematics of the National Academy of Sciences of Ukraine, Department of Mathematical Physics (L'viv, Ukraine), mathematician
1996 – 2000	Vasyl Stefanyk Precarpathian National University, Faculty of Mathematics and Computer Sciences (Ivano-Frankivsk, Ukraine), assistant
2002 – till now	Vasyl Stefanyk Carpathian (Precarpathian) National University, Faculty of Mathematics and Computer Sciences (Ivano-Frankivsk, Ukraine), associate professor

RESEARCHER IDENTIFIERS

Web of Science ResearcherID	A-9770-2016
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zbMATH Open	https://zbmath.org/authors/?q=goy+taras
MathSciNet	https://mathscinet.ams.org/mathscinet/MRAuthorID/624925
SciProfiles	1901738
arXiv	https://arxiv.org/a/goy_t_1.html
ResearchGate	https://www.researchgate.net/profile/Taras-Goy

MEMBERSHIP

Editorial Board Membership: *Carpathian Mathematical Publications*; *Notes on Number Theory and Discrete Mathematics*; *JP Journal of Algebra, Number Theory and Applications*; *Advances and Applications in Discrete Mathematics*; *European Journal of Mathematics and Statistics*.

Topic Editor: *Contemporary Mathematics* (2024-2025).

Guest Editor: Special Issue "Advanced Studies in Contemporary Mathematics" (*Axioms*, 2022).

Member of the Scientific Board of the *International Symposium on Current Developments in Fundamental and Applied Mathematics Sciences* (Turkey, 2023, 2024); Member of the Program Committee of the *3rd International Conference on Mathematics, Computer Science & Engineering* (United Arab Emirates, 2025).

Reviewer for Mathematical Reviews (American Mathematical Society).

Reviewer for more than 80 journals, including *AIMS Mathematics*; *Applicable Analysis and Discrete Mathematics*; *Applied Mathematics E-Notes*; *Applied Mathematics in Science and Engineering*; *Applied Sciences*; *Axioms*; *Electronic Research Archive*; *European Journal of Pure and Applied Mathematics*; *Fibonacci Quarterly*; *Filomat*; *Integers*; *Indian Journal of Pure and Applied Mathematics*; *Journal of Applied Mathematics*; *Journal of Difference Equations and Applications*; *Journal of Mathematics*; *Linear and Multilinear Algebra*; *Matematychni Studii*; *Mathematical Methods in the Applied Sciences*; *Mathematics*; *Mediterranean Journal of Mathematics*; *Notes on Number Theory and Discrete Mathematics*; *Research in Mathematics*; *Symmetry*; *Transactions on Combinatorics*; *Turkish Journal of Mathematics*; *Ukrainian Mathematical Journal*.

LIST OF SELECTED PUBLICATIONS

1. Goy T., Shattuck M. Determinants of Toeplitz–Hessenberg matrices with Fuss–Catalan entries, *J. Integer Seq.* (2026), 29, Art. 26.2.2, [to accept](#).
2. Eser E., Goy T., Özkan E. On a sequence related to Mersenne numbers and its connections to the Horadam sequence, *Maejo Int. J. Sci. Tech.* (2026), [to accept](#).
3. Adegoke K., Frontczak R., Goy T. Harmonic number series associated with certain generating functions, *Bol. Soc. Mat. Mex.* (2026), 32(1), Art. no 9.
4. Adegoke K., Frontczak R., Goy T. Series and sums involving the floor function, *Montes Taurus J. Pure Appl. Math.* (2025), 7(2), [to accept](#).
5. Goy T., Shattuck M. Determinantal representations of some classical recurrent sequences, *Integers* (2025), 25, #97.
6. Adegoke K., Frontczak R., Goy T. On some series involving the central binomial coefficients, *Proc. Jangjeon Math. Soc.* (2025), 28(3), 329–342.
7. Adegoke K., Frontczak R., Goy T. Combinatorial sums, series and integrals involving odd harmonic numbers, *Afr. Mat.* (2025), 36, Art. no 124.
8. Adegoke K., Frontczak R., Goy T. On a problem of Mezđ and its generalizations to three classes of rational zeta series, *Appl. Anal. Discrete Math.* (2025), 19(1), 46–66.
9. Adegoke K., Frontczak R., Goy T. Fibonacci sums modulo 5, *Ann. Math. Sil.* (2025), 39(1), 1–22.
10. Goy T., Shattuck M. Toeplitz–Hessenberg determinant formulas for the sequence $F_n - 1$, *Online J. Anal. Comb.* (2024), 19, Art. #1, 26 pp.
11. Adegoke K., Frontczak R., Goy T. Some notes on a Fibonacci–Lucas identity, *Proc. Jangjeon Math. Soc.* (2024), 27(4), 859–869.
12. Adegoke K., Frontczak R., Goy T. On some series involving the binomial coefficients $\binom{3n}{n}$, *Notes Number Theory Discrete Math.* (2024), 30(2), 319–334.
13. Goy T., Shattuck M. Determinants of Toeplitz–Hessenberg matrices with generalized Leonardo numbers entries, *Ann. Math. Sil.* (2024), 38(2), 284–313.
14. Goy T., Shattuck M. Determinant identities for the Catalan, Motzkin and Schröder numbers, *Art Discrete Appl. Math.* (2024), 7(1), #P1.09.
15. Adegoke K., Frontczak R., Goy T. New binomial Fibonacci sums, *Palest. J. Math.* (2024), 13(1), 323–339.
16. Adegoke K., Frontczak R., Goy T. Binomial sum relations involving Fibonacci and Lucas numbers, *AppliedMath* (2023), 3(4), 851–881.

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17. Adegoke K., Frontczak R., Goy T. Binomial Fibonacci sums from Chebyshev polynomials, *J. Integer Seq.* (2023), 26, Article 23.9.6.
 18. Goy T., Shattuck M. Hessenberg–Toeplitz matrix determinants with Schröder and Fine entries, *Carpathian Math. Publ.* (2023), 15(2), 420–436.
 19. Goy T., Shattuck M. Determinants of Some Hessenberg–Toeplitz matrices with Motzkin number entries, *J. Integer Seq.* (2023), 26, Art. 23.3.4.
 20. Adegoke K., Frontczak R., Goy T. Reciprocal series involving Horadam numbers, *Ukrainian Math. J.* (2023), 75(3), 335–346.
 21. Adegoke K., Frontczak R., Goy T. Additional Fibonacci–Bernoulli relations, *Res. Math.* (2022), 30(2), 3–17.
 22. Adegoke K., Frontczak R., Goy T. Fibonacci–Catalan series, *Integers* (2022), 22, #110.
 23. Adegoke K., Frontczak R., Goy T. Recurrence relations for the squares of the Horadam numbers and some associated consequences, *Tatra Mt. Math. Publ.* (2022), 82 (2), 17–28.
 24. Adegoke K., Frontczak R., Goy T. On a family of infinite series with reciprocal Catalan numbers, *Axioms* (2022), 11(4), 165.
 25. Frontczak R., Goy T., Shattuck M. Fibonacci–Lucas–Pell–Jacobsthal relations, *Ann. Math. Inform.* (2022), 54, 28–48.
 26. Frontczak R., Goy T., Shattuck M. Identities relating six members of the Fibonacci family of sequences, *Carpathian Math. Publ.* (2022), 14(1), 6–19.
 27. Adegoke K., Frontczak R., Goy T. Some special sums with squared Horadam numbers and generalized tribonacci numbers, *Palest. J. Math.* (2022), 11(1), 66–73.
 28. Adegoke K., Frontczak R., Goy T. Binomial tribonacci sums, *Discrete Math. Lett.* (2022), 8(1), 30–37.
 29. Frontczak R., Goy T. Chebyshev–Fibonacci polynomial relations using generating functions, *Integers* (2021), 21, #A100.
 30. Frontczak R., Goy T. More Fibonacci–Bernoulli relations with and without balancing polynomials, *Math. Commun.* (2021), 26(2), 215–226.
 31. Adegoke K., Frontczak R., Goy T. Special formulas involving polygonal numbers and Horadam numbers, *Carpathian Math. Publ.* (2021), 27(1), 207–216.
 32. Frontczak R., Goy T. Lucas–Euler relations using balancing and Lucas-balancing polynomials, *Kyungpook Math. J.* (2021), 61(3), 473–486.
 33. Frontczak R., Goy T. General infinite series evaluations involving Fibonacci numbers and the Riemann zeta function. *Mat. Stud.* (2021), 55(2), 115–123.
 34. Goy T., Shattuck M. Determinant formulas of some Hessenberg matrices with Jacobsthal entries. *Appl. Appl. Math.* (2021), 16(1), 191–213.
 35. Adegoke K., Frontczak R., Goy T. Partial sum of the products of the Horadam numbers with subscripts in arithmetic progression. *Notes Number Theory Discrete Math.* (2021), 27(2), 54–63.
 36. Frontczak R., Goy T. Combinatorial sums associated with balancing and Lucas-balancing polynomials, *Ann. Math. Inform.* (2020), 52, 97–105.
 37. Goy T. Combinatorial properties of Boubaker polynomials, *Math. Probl. Eng.* (2020), 2020, Art. ID 1528639.
 38. Goy T., Shattuck M. Some Toeplitz–Hessenberg determinant identities for the tetranacci numbers, *J. Integer Seq.* (2020), 23(6), Art. 20.6.8.
 39. Goy T., Shattuck M. Determinant identities for Toeplitz–Hessenberg matrices with tribonacci number entries, *Trans. Comb.* (2020), 9(2), 89–109.
 40. Goy T., Shattuck M. Fibonacci–Lucas identities and the generalized Trudi formula, *Notes Number Theory Discrete Math.* (2020), 26(3), 203–217.
 41. Frontczak R., Goy T. Mersenne–Horadam identities using generating functions, *Carpathian Math. Publ.* (2020), 12(1), 34–45.
 42. Goy T., Sharyn S. On Pell–Padovan numbers and their connection on Fibonacci numbers, *Carpathian Math. Publ.* (2020), 12(2), 280–288.
 43. Goy T., Shattuck M. Determinant formulas of some Toeplitz–Hessenberg matrices with Catalan entries, *Proc. Indian Acad. Sci. Math. Sci.* (2019), 129, Art. 46.
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44. Goy T., Zatorsky R. On Oresme numbers and their connection with Fibonacci and Pell numbers, *Fibonacci Quart.* (2019), 57(3), 238–245.
45. Goy T. Pell numbers identities from Toeplitz–Hessenberg determinants and permanents, *Novi Sad J. Math.* (2019), 49(2), 87–94.
46. Goy T., Shattuck M. Determinants of Toeplitz–Hessenberg matrices with generalized Fibonacci entries, *Notes Number Theory Discrete Math.* (2019), 25(4), 83–95.
47. Goy T., Shattuck M. Fibonacci and Lucas identities using Toeplitz–Hessenberg matrices, *Appl. Appl. Math.* (2019), 14(2), 699–715.
48. Goy T. On identities with multinomial coefficients for Fibonacci–Narayana sequence, *Ann. Math. Inform.* (2018), 49, 75–84.
49. Goy T. Horadam sequence through recurrent determinants of tridiagonal matrix, *Kragujevac J. Math.* (2018), 42(4), 527–532.
50. Goy T. On new identities for Mersenne numbers, *Appl. Math. E-Notes* (2018), 18, 100–105.
51. Goy T. Fibonacci and Lucas numbers via the determinants of tridiagonal matrix, *Notes Number Theory Discrete Math.* (2018), 24(1), 103–108.
52. Goy T. Some families of identities for Padovan numbers, *Proc. Jangjeon Math. Soc.* (2018), 21(3), 413–419.
53. Goy T. On determinants and permanents of some Toeplitz–Hessenberg matrices whose entries are Jacobsthal numbers, *Eurasian Math. J.* (2018), 9(4), 61–67.
54. Goy T., Zatorsky R. Infinite linear recurrence relation and superposition of linear recurrence equations, *J. Integer Seq.* (2017), 20(5), Art. 17.5.3.
55. Zatorsky R.A., Goy T.P. Parapermanents of triangular matrices and some general theorems on number sequences, *J. Integer Seq.* (2016), 19(2), Art. 16.2.20.

SELECTED INTERNATIONAL CONFERENCES AND WORKSHOPS (2023–2025)

May 23–25, 2023	Int. Sci. Conf. “Current Problems of Mechanics and Mathematics” (Ukraine)
July 18, 2023	Int. Workshop on Current Trends in Analysis and Approximation Theory (Italy)
Aug. 26–28, 2023	XXIII Int. Pure Mathematics Conf. on Algebra, Analysis and Geometry (Pakistan)
Sept. 4–9, 2023	XIII Int. Conf. of the Georgian Mathematical Union (Georgia)
Sept. 28–30, 2023	Int. Conf. “Mathematics and Information Technologies” (Ukraine)
Oct. 11–12, 2023	XIX Int. Sci. M. Kravchuk Conference (Ukraine)
May 27 –30, 2024	Int. Sci. Conf. «Algebraic and Geometric Methods of Analysis» (Ukraine)
June 20–22, 2024	Int. Conf. on Modern Problems of Mathematics, Mechanics and their Applications (Azerbaijan)
July 3–6, 2024	XI Int. Sci. Conf. “Modern Problems of Mathematics and Mechanics” (Azerbaijan)
July 9–11, 2024	VIII Int. Conf. on Mathematics: An Istanbul Meeting for World Mathematicians (Turkey)
Sept. 2–5, 2024	III Int. Symposium on Current Developments in Fundamental and Applied Mathematics Sciences (Turkey)
Sept. 2–7, 2024	XIV Int. Conf. of the Georgian Mathematical Union (Georgia)
Sept. 17–18, 2024	IV Int. Conf. on Applied Algebra (Algeria)
Sept. 23–27, 2024	V Int. Conf. dedicated to the 145th anniversary of Hans Hahn (Ukraine)
April 14–18, 2025	Int. Conf. on Number Theory and Applications “4èmes Journées Arithmétiques de Meknès” (Morocco)
May 26–29, 2025	Int. Sci. Conf. «Algebraic and Geometric Methods of Analysis» (Ukraine)
June 25–27, 2025	Int. Workshop on Modern Problems of Analysis, Optimization, Approximation and Their Applications (Italy)
Sept. 1–6, 2025	XV Int. Conf. of the Georgian Math. Union (Georgia)
Sept. 23–25, 2025	XII Int. Skorobohatko Math. Conf. (Ukraine)
Nov. 17–20, 2025	XX Int. Sci. M. Kravchuk Conference (Ukraine)