

CURRICULUM VITAE

Taras Goy

| PERSONAL INFORMATION | |
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| Date of birth: | December 24, 1969 |
| Address: | Faculty of Mathematics and Computer Sciences, Department of Differential Equations and Applied Mathematics, Vasyl Stefanyk Precarpathian 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 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> |
| 2018 – 2020 | Title of PhD thesis: Nonlocal value-boundary problems for partial differential equations. Thesis Advisor: Prof. Bohdan Ptashnyk 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; 05A15 Exact enumeration problems, generating functions; 11B68 Bernoulli and Euler numbers and polynomials; 40A05 Convergence and divergence of series and sequences. |
| PROFESSIONAL EXPERIENCE | |
| Academic Positions: | |
| 1995 – 1996 | Pidstryhach Institute for Applied Problems of Mechanics and Mathematics of 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 Precarpathian National University, Faculty of Mathematics and Computer Sciences (Ivano-Frankivsk, Ukraine), associate professor |
| SCIENTIFIC IDENTIFICATORS | |
| Web of Science ResearcherID: | A-9770-2016 |
| Scopus Author ID: | 57944314900 |
| ORCID: | 0000-0002-6212-3095 |
| SciProfiles: | 1901738 |
| arXiv: | https://arxiv.org/a/goy_t_1.html |
| ResearchGate: | https://www.researchgate.net/profile/Taras-Goy |

| SELECTED INTERNATIONAL CONFERENCES (2020 – 2024) | |
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| March 12–13, 2020 | Int. Sci. Conf. “Modern Problems of Differential Equations and Related Branches of Mathematics” (Uzbekistan) |
| November 22–25, 2021 | XIII Belarusian Math. Conf. (Belarus) |
| May 12–15, 2022 | Int. Conf. “Current Trends in Abstract and Applied Analysis” (Ukraine) |
| May 25–26, 2023 | IV Int. Internet Conf. “Mathematics and Informatics in Science and Education: Challenges of Modernity” (Ukraine) |
| 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) |
| August 26–28, 2023 | XXIII Int. Pure Mathematics Conf. on Algebra, Analysis and Geometry (Pakistan) |
| September 4–9, 2023 | XIII Int. Conf. of the Georgian Mathematical Union (Georgia) |
| September 28–30, 2023 | Int. Conf. “Mathematics and Information Technologies” (Ukraine) |
| October 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) |
| September 2–5, 2024 | III Int. Symposium on Current Developments in Fundamental and Applied Mathematics Sciences (Turkey) |
| September 2–7, 2024 | XIV Int. Conf. of the Georgian Mathematical Union (Georgia) |
| September 17–18, 2024 | IV Int. Conf. on Applied Algebra (Algeria) |
| September 23–27, 2024 | V Int. Conf. dedicated to the 145th anniversary of Hans Hahn (Ukraine) |

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

Topic Editor: *Contemporary Mathematics*.

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

Member of Scientific Board of International Symposium on Current Developments in Fundamental and Applied Mathematics Sciences (Turkey, 2023, 2024).

Reviewer of Mathematical Reviews (American Mathematical Society).

Reviewer for more than 50 journals, including: *AIMS Mathematics*; *Annales Mathematicae Silesianae*; *Applicable Analysis and Discrete Mathematics*; *Applied Mathematics E-Notes*; *Applied Sciences*; *Ars Combinatoria*; *Axioms*; *Bulletin of the Malaysian Mathematical Sciences Society*; *Carpathian Mathematical Publications*; *Communications of the Korean Mathematical Society*; *Contemporary Mathematics*; *Discrete Dynamics in Nature and Society*; *Electronic Research Archive*; *Filomat*; *Integers*; *Indian Journal of Pure and Applied Mathematics*; *International Journal of Mathematics and Mathematical Sciences*; *Journal of Applied Mathematics*; *Journal of Inequalities and Applications*; *Journal of Mathematics*; *Matematychni Studii*; *Mathematics*; *Mathematics and Statistics*; *Notes on Number Theory and Discrete Mathematics*; *Online Journal of Analytic Combinatorics*; *Operators and Matrices*; *Palestine Journal of Mathematics*; *Punjab University Journal of Mathematics*; *Real Analysis Exchange*; *Research in Mathematics*; *South East Asian Journal of Mathematics and Mathematical Sciences*; *Symmetry*; *Quaestiones Mathematicae*; *Transactions on Combinatorics*; *Turkish Journal of Mathematics*; *Turkish Journal of Mathematics and Computer Science*; *Ukrainian Mathematical Journal*.

LIST OF SELECTED PUBLICATIONS

1. Adegoke K, Frontczak R, Goy T. Fibonacci sums modulo 5, *Ann. Math. Sil.* (2025), 39(1), *in press*.
2. 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), *in press*.
3. Goy T, Shattuck M. Toeplitz-Hessenberg determinant formulas for the sequence $F_n - 1$, *Online J. Anal. Comb.* (2024), 19, *in press*.
4. Adegoke K, Frontczak R, Goy T. Some notes on a Fibonacci–Lucas identity, *Proc. Jangjeon Math. Soc.* (2024), 27(4), 859–869.
5. 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.
6. Goy T, Shattuck M. Determinants of Toeplitz-Hessenberg matrices with generalized Leonardo numbers entries, *Ann. Math. Sil.* (2024), 38(2), 284–313.
7. Adegoke K, Frontczak R, Goy T. The integrals in Gradshteyn and Ryzhik. Part 1: An Addendum, *Sci. Ser. A Math. Sci. (N.S.)*. (2024), 34, 27–37.
8. Goy T, Shattuck M. Determinant identities for the Catalan, Motzkin and Schröder number, *Art Discrete Appl. Math.* (2024), 7(1), #P1.09.
9. Adegoke K, Frontczak R, Goy T. New binomial Fibonacci sums, *Palest. J. Math.* (2024), 13(1), 323–339.
10. Adegoke K, Frontczak R, Goy T. Binomial sum relations involving Fibonacci and Lucas numbers, *AppliedMath* (2023), 3(4), 851–881.
11. Adegoke K, Frontczak R, Goy T. Binomial Fibonacci sums from Chebyshev polynomials, *J. Integer Seq.* (2023), 26, Article 23.9.6.
12. Goy T, Shattuck M. Hessenberg–Toeplitz matrix determinants with Schröder and Fine entries, *Carpathian Math. Publ.* (2023), 15(2), 420–436.
13. Goy T, Shattuck M. Determinants of Some Hessenberg–Toeplitz matrices with Motzkin number entries, *J. Integer Seq.* (2023), 26, Article 23.3.4.
14. Adegoke K, Frontczak R, Goy T. Reciprocal series involving Horadam numbers, *Ukrainian Math. J.* (2023), 75(3), 335–346.
15. Adegoke K, Frontczak R, Goy T. Additional Fibonacci–Bernoulli relations, *Res. Math.* (2022), 30(2), 3–17.
16. Adegoke K, Frontczak R, Goy T. Fibonacci–Catalan series, *Integers* (2022), 22, #110.
17. Adegoke K, Frontczak R, Goy T. Recurrence relations for the squares the Horadam numbers and some associated consequences, *Tatra Mt. Math. Publ.* (2022), 82 (2), 17–28.
18. Adegoke K, Frontczak R, Goy T. On a family of infinite series with reciprocal Catalan numbers, *Axioms* (2022), 11(4), 165.
19. Frontczak R, Goy T, Shattuck M. Fibonacci–Lucas–Pell–Jacobsthal relations, *Ann. Math. Inform.* (2022), 54, 28–48.
20. Frontczak R, Goy T, Shattuck M. Identities relating six members of the Fibonacci family of sequences, *Carpathian Math. Publ.* (2022), 14(1), 6–19.
21. Adegoke K, Frontczak R, Goy T. Some special sums with squared Horadam numbers with and generalized tribonacci numbers, *Palest. J. Math.* (2022), 11(1), 66–73.
22. Adegoke K, Frontczak R, Goy T. Binomial tribonacci sums, *Discrete Math. Lett.* (2022), 8(1), 30–37.
23. Frontczak R, Goy T. Chebyshev–Fibonacci polynomial relations using generating functions, *Integers* (2021), 21, #A100.
24. Frontczak R, Goy T. More Fibonacci–Bernoulli relations with and without balancing polynomials, *Math. Commun.* (2021), 26(2), 215–226.
25. Frontczak R, Goy T. Additional close links between balancing and Lucas-balancing polynomials, *Adv. Stud. Contemp. Math.* (2021), 31(2), 287–300.
26. Adegoke K, Frontczak R, Goy T. Special formulas involving polygonal numbers and Horadam numbers, *Carpathian Math. Publ.* (2021), 27(1), 207–216.

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27. Frontczak R., Goy T. Lucas–Euler relations using balancing and Lucas-balancing polynomials, *Kyungpook Math. J.* (2021), 61(3), 473–486.
 28. Frontczak R., Goy T. General infinite series evaluations involving Fibonacci numbers and the Riemann zeta function. *Mat. Stud.* (2021), 55(2), 115–123.
 29. Goy T., Shattuck M. Determinant formulas of some Hessenberg matrices with Jacobsthal entries. *Appl. Appl. Math.* (2021), 16(1), 191–213.
 30. 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.
 31. Frontczak R., Goy T. Combinatorial sums associated with balancing and Lucas-balancing polynomials, *Ann. Math. Inform.* (2020), 52, 97–105.
 32. Goy T. Combinatorial properties of Boubaker polynomials, *Math. Probl. Eng.* (2020), 2020, Art. ID 1528639.
 33. Goy T., Shattuck M. Some Toeplitz–Hessenberg determinant identities for the tetranacci numbers, *J. Integer Seq.* (2020), 23(6), Article 20.6.8.
 34. Goy T., Shattuck M. Determinant identities for Toeplitz–Hessenberg matrices with tribonacci number entries, *Trans. Comb.* (2020), 9(2), 89–109.
 35. Goy T., Zatorsky R. Hessenberg Matrices: Properties and Some Applications. In: *Hot Topics in Linear Algebra*, edited by I. Kyrchei, Nova Science Publ., New York, 2020, P. 163–204.
 36. Goy T., Shattuck M. Fibonacci-Lucas identities and the generalized Trudi formula, *Notes Number Theory Discrete Math.* (2020), 26(3), 203–217.
 37. Frontczak R., Goy T. Mersenne–Horadam identities using generating functions, *Carpathian Math. Publ.* (2020), 12(1), 34–45.
 38. Goy T., Sharyn S. On Pell–Padovan numbers and their connection on Fibonacci numbers, *Carpathian Math. Publ.* (2020), 12(2), 280–288.
 39. Goy T., Shattuck M. Determinant formulas of some Toeplitz–Hessenberg matrices with Catalan entries, *Proc. Indian Acad. Sci. Math. Sci.* (2019), 129, Article 46.
 40. Goy T., Zatorsky R. On Oresme numbers and their connection with Fibonacci and Pell numbers, *Fibonacci Quart.* (2019), 57(3), 238–245.
 41. Goy T. Pell numbers identities from Toeplitz–Hessenberg determinants and permanents, *Novi Sad J. Math.* (2019), 49(2), 87–94.
 42. Goy T., Shattuck M. Determinants of Toeplitz-Hessenberg matrices with generalized Fibonacci entries, *Notes Number Theory Discrete Math.* (2019), 25(4), 83–95.
 43. Goy T., Shattuck M. Fibonacci and Lucas identities using Toeplitz–Hessenberg matrices, *Appl. Appl. Math.* (2019), 14(2), 699–715.
 44. Goy T. On identities with multinomial coefficients for Fibonacci–Narayana sequence, *Ann. Math. Inform.* (2018), 49, 75–84.
 45. Goy T. Horadam sequence through recurrent determinants of tridiagonal matrix, *Kragujevac J. Math.* (2018), 42(4), 527–532.
 46. Goy T. On new identities for Mersenne numbers, *Appl. Math. E-Notes* (2018), 18, 100–105.
 47. Goy T. Fibonacci and Lucas numbers via the determinants of tridiagonal matrix, *Notes Number Theory Discrete Math.* (2018), 24(1), 103–108.
 48. Goy T. Some families of identities for Padovan numbers, *Proc. Jangjeon Math. Soc.* (2018), 21(3), 413–419.
 49. Goy T.P. On some fibinomial identities, *Chebyshevskii Sb.* (2018), 19(2), 56–66.
 50. Goy T. On determinants and permanents of some Toeplitz-Hessenberg matrices whose entries are Jacobsthal numbers, *Eurasian Math. J.* (2018), 9(4), 61–67.
 51. Goy T., Zatorsky R. Infinite linear recurrence relation and superposition of linear recurrence equations, *J. Integer Seq.* (2017), 20(5), Article 17.5.3.
 52. Zatorsky R.A., Goy T.P. Parapermanents of triangular matrices and some general theorems on number sequences, *J. Integer Seq.* (2016), 19(2), Article 16.2.20.
 53. Goy T.P., Zatorsky R.A. New integral functions generated by rising factorial powers, *Carpathian Math. Publ.* (2013), 5(2), 217–224.