

# 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 Precarpathian National University, 57 Shevchenko st., Ivano-Frankivsk, Ukraine, 76018; e-mail: <a href="mailto:taras.goy@pnu.edu.ua">taras.goy@pnu.edu.ua</a>

## 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> 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; 11B73 Bell and Stirling numbers; 11B83 Special sequences and polyno- mials; 11C20 Matrices, determinants in number theory; 15A15 Determi- nants, permanents, traces, other special matrix functions; 15B05 Toeplitz, Cauchy, and related matrices; 15B36 Matrices of integers; 05A15 Exact enumeration problems, generating functions; 11B68 Bernoulli and Euler numbers and polynomials.
----------------------------	--

## 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 (Lviv, Ukraine), <i>mathematician</i>
1996 – 2000	Vasyl Stefanyk Precarpathian National University, Faculty of Mathematics and Computer Sciences (Ivano-Frankivsk, Ukraine), <i>assistant</i>
2002 - till now	Vasyl Stefanyk Precarpathian National University, Faculty of Mathematics and Computer Sciences (Ivano-Frankivsk, Ukraine), <i>associate professor</i>

**Selected International Conferences (2017–2022):****2017**

July 12–15	30th Int. Conf. of the Jangjeon Mathematical Society (Algeria)
August 22–25	Int. Conf. “Contemporary Problems of Pure and Applied Mathematics” (Kazakhstan)
August 21–26	Int. Conf. “Numbers, Forms and Geometry” (Russia)

**2018**

September 13–15	Int. Scientific Conf. “Modern Problems of Applied Mathematics and Information Technology – Al-Khorezmiy 2018” (Uzbekistan)
September 24–28	6th Int. Conf. on Analytic Number Theory and Spatial Tessellations “Voronoi Impact on Modern Science” (Ukraine)

**2019**

July 2–6	XII Int. Algebraic Conf. in Ukraine (Ukraine)
July 1–5	Int. Conf. “31th Journées Arithmétiques” (Turkey)
Sept. 28 – Oct. 1	5th Conf. of the Math. Society of the Republic of Moldova (Moldova).
October 16–19	Int. Conf. “Actual Problems of Analysis, Differential Equations and Algebra” (Kazakhstan)
October 23–25	Int. Conf. “Modern problems of Mathematics and Mechanics” (Azerbaijan)

**2020**

March 12–13	Int. Sci. Conf. “Modern Problems of Differential Equations and Related Branches of Mathematics” (Uzbekistan)
October 26 – 30	XI Int. Skorobohatko Math. Conf. (Ukraine)

**2021**

November 22–25	XIII Belarusian Math. Conf. (Belarus)
----------------	---------------------------------------

**2022**

May 12–15	Int. On-Line Conf. “Current Trends in Abstract and Applied Analysis” (Ukraine)
-----------	--

**MEMBERSHIP**

Member of Editorial Board of the journals: *Carpathian Mathematical Publications*; *JP Journal of Algebra, Number Theory and Applications*; *European Journal of Mathematics and Statistics*.

Member of Scientific Society named after T. Shevchenko, Ivano-Frankivsk branch.

Reviewer of *Mathematical Reviews* (American Mathematical Society).

Reviewer in journals: *Annales Mathematicae Silesianae*; *Applied Mathematics E-Notes*; *Applied Sciences*; *Ars Combinatoria*; *Axioms*; *Carpathian Mathematical Publications*; *Communications. Faculty of Sciences. University of Ankara. Series A1. Mathematics and Statistics*; *Contributions to Mathematics*; *Discussiones Mathematicae, General Algebra and Applications*; *Electronic Journal of Mathematics*; *Far East Journal of Mathematical Sciences*; *Fractal and Fractional*; *Integers*; *Indian Journal of Pure and Applied Mathematics*; *International Journal of Mathematics and Mathematical Sciences*; *Journal of Pure and Applied Mathematics: Advances and Applications*; *JP Journal of Algebra, Number Theory and Applications*; *Malaysian Journal of Mathematical Sciences*; *MANAS Journal of Engineering*; *Matematychni Studii*; *Mathematical Problems in Engineering*; *Mathematics*; *Mathematics and Statistics*; *Notes on Number Theory and Discrete Mathematics*; *Open Journal of Mathematical Sciences*; *Operators and Matrices*; *Palestine Journal of Mathematics*; *Punjab University Journal of Mathematics*; *Sigma Journal of Engineering and Natural Sciences*; *Symmetry*; *Quaestiones Mathematicae*; *Thai Journal of Mathematics*; *Turkish Journal of Mathematics*; *Turkish Journal of Mathematics and Computer Science*; *Universal Journal of Mathematics and Applications*; *Utilitas Mathematica*.

## LIST OF SELECTED PUBLICATIONS

1. Adegoke K., Frontczak R., Goy T. Additional Fibonacci-Bernoulli relations, *Res. Math.* (2022), *to submit*.
2. Adegoke K., Frontczak R., Goy T. Fibonacci-Catalan series. *Integers* (2022), *to accept*.
3. Adegoke K., Frontczak R., Goy T. Reciprocal series involving Horadam numbers, *Ukrain. Mat. Zh.* (2022), *to accept*.
4. Adegoke K., Frontczak R., Goy T. Recurrence relations for the squares the Horadam numbers and some associated consequences, *Tatra Mt. Math. Publ.* (2022), 81, *to accept*.
5. Adegoke K., Frontczak R., Goy T. On a family of infinite series with reciprocal Catalan numbers, *Axioms* (2022), 11(4), 165.
6. Frontczak R., Goy T., Shattuck M. Fibonacci-Lucas-Pell-Jacobsthal relations. *Ann. Math. Inform.* (2022), 54, doi: 10.33039/ami.2022.01.002.
7. Frontczak R., Goy T., Shattuck M. Identities relating six members of the Fibonacci family of sequences. *Carpathian Math. Publ.* (2022), 14(1), 6–19.
8. Adegoke K., Frontczak R., Goy T. Some special sums with squared Horadam numbers with and generalized tribonacci numbers, *Palestine J. Math.* (2022), 11(1), 66–73.
9. Adegoke K., Frontczak R., Goy T. Binomial tribonacci sums, *Discrete Math. Lett.* (2022), 8(1), 30–37.
10. Frontczak R., Goy T. Chebyshev-Fibonacci polynomial relations using generating functions. *Integers* (2021), 21, #A100.
11. Frontczak R., Goy T. More Fibonacci-Bernoulli relations with and without balancing polynomials. *Math. Commun.* (2021), 26(2), 215–226.
12. Frontczak R., Goy T. Additional close links between balancing and Lucas-balancing polynomials, *Adv. Stud. Contemp. Math.* (2021), 31(2), 287–300.
13. Adegoke K., Frontczak R., Goy T. Special formulas involving polygonal numbers and Horadam numbers. *Carpathian Math. Publ.* (2021), 27(1), 207–216.
14. Frontczak R., Goy T. Lucas-Euler relations using balancing and Lucas-balancing polynomials, *Kyungpook Math. J.* (2021), 61(3), 473–486.
15. Frontczak R., Goy T. General infinite series evaluations involving Fibonacci numbers and the Riemann zeta function. *Mat. Stud.* (2021), 55(2), 115–123.
16. Goy T., Shattuck M. Determinant formulas of some Hessenberg matrices with Jacobsthal entries. *Appl. Appl. Math.* (2021), 16(1), 191–213.
17. 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.
18. Frontczak R., Goy T. Combinatorial sums associated with balancing and Lucas-balancing polynomials, *Ann. Math. Inform.* (2020), 52, 97–105.
19. Goy T. Combinatorial properties of Boubaker polynomials, *Math. Probl. Eng.* (2020), 2020, Article ID 1528639.
20. Goy T., Shattuck M. Some Toeplitz–Hessenberg determinant identities for the tetranacci numbers, *J. Integer Seq.* (2020), 23(6), Article 20.6.8.
21. Goy T., Shattuck M. Determinant identities for Toeplitz-Hessenberg matrices with tribonacci number entries, *Trans. Comb.* (2020), 9(2), 89–109.
22. 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.
23. Goy T., Shattuck M. Fibonacci-Lucas identities and the generalized Trudi formula, *Notes Number Theory Discrete Math.* (2020), 26(3), 203–217.

- 
24. Frontczak R., Goy T. Mersenne-Horadam identities using generating functions, *Carpathian Math. Publ.* (2020), 12(1), 34–45.
  25. Goy T., Sharyn S. On Pell-Padovan numbers and their connection on Fibonacci numbers, *Carpathian Math. Publ.* (2020), 12(2), 280–288.
  26. Goy T., Shattuck M. Determinant formulas of some Toeplitz–Hessenberg matrices with Catalan entries, *Proc. Indian Acad. Sci. Math. Sci.* (2019), 129, Article 46.
  27. Goy T., Zatorsky R. On Oresme numbers and their connection with Fibonacci and Pell numbers, *Fibonacci Quart.* (2019), 57(3), 238–245.
  28. Goy T. Pell numbers identities from Toeplitz-Hessenberg determinants and permanents, *Novi Sad J. Math.* (2019), 49(2), 87–94.
  29. Goy T., Shattuck M. Determinants of Toeplitz-Hessenberg matrices with generalized Fibonacci entries, *Notes Number Theory Discrete Math.* (2019), 25(4), 83–95.
  30. Goy T., Shattuck M. Fibonacci and Lucas identities using Toeplitz–Hessenberg matrices, *Appl. Appl. Math.* (2019), 14(2), 699–715.
  31. Goy T. On identities with multinomial coefficients for Fibonacci-Narayana sequence, *Ann. Math. Inform.* (2018), 49, 75–84.
  32. Goy T. Horadam sequence through recurrent determinants of tridiagonal matrix, *Kragujevac J. Math.* (2018), 42(4), 527–532.
  33. Goy T. On new identities for Mersenne numbers, *Appl. Math. E-Notes* (2018), 18, 100–105.
  34. Goy T. Fibonacci and Lucas numbers via the determinants of tridiagonal matrix, *Notes Number Theory Discrete Math.* (2018), 24(1), 103–108.
  35. Goy T., Negrych M., Savka I. On nonlocal boundary value problem for the equation of motion of a homogeneous elastic beam with pinned-pinned ends, *Carpathian Math. Publ.* (2018), 10(1), 105–113.
  36. Goy T. Some families of identities for Padovan numbers, *Proc. Jangjeon Math. Soc.* (2018), 21(3), 413–419.
  37. Goy T.P. On some fibinomial identities, *Chebyshevskii Sb.* (2018), 19(2), 56–66.
  38. Goy T. On determinants and permanents of some Toeplitz-Hessenberg matrices whose entries are Jacobsthal numbers, *Eurasian Math. J.* (2018), 9(4), 61–67.
  39. Goy T., Zatorsky R. Infinite linear recurrence relation and superposition of linear recurrence equations, *J. Integer Seq.* (2017), 20(5), Article 17.5.3.
  40. 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.
  41. Goy T.P. Special functions generated by rising and central factorial powers. *Vestn. Tomsk. Gos. Univ. Mat. Mekh.* (2016), 2(40), 19–32.
  42. Goy T.P., Zatorsky R.A. New integral functions generated by rising factorial powers, *Carpathian Math. Publ.* (2013), 5(2), 217–224.
  43. Goi T.P., Ptashnik B.I. Problem with nonlocal conditions for weakly nonlinear hyperbolic equations, *Ukrainian Math. J.* (1997), 49(2), 204–215.
  44. Goi T.P., Ptashnik B.I. Nonlocal boundary-value problems for systems of linear partial differential equations with variable coefficients, *Ukrainian Math. J.* (1997), 49(11), 1659–1670.
  45. Goy T. Problem B-1192, *Fibonacci Quart.* (2016), 54(3), 272.
  46. Goy T. Problem B-1210, *Fibonacci Quart.* (2017), 55(2), 179.
  47. Goy T. Problem B-1230, *Fibonacci Quart.* (2018), 56(2), 178.
  48. Goy T. Solution to Problem B-75, *Fibonacci Quart.* (2020), 58(1), 83–84.
  49. Goy T. Problem H-857, *Fibonacci Quart.* (2020), 58(2), 186.