

CURRICULUM VITAE

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EDUCATION

A.B. (Applied Mathematics), Lesya Ukrainka Volyn National University, 2010
A.M. (Informatics), Lesya Ukrainka Volyn National University, 2011
Ph.D. (Physics and Mathematics; speciality: System Analysis and Optimum Solutions Theory), National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", 2018

ACADEMIC POSITIONS

PhD Student, Department of Mathematical Methods of System Analysis, Institute for Applied System Analysis, Igor Sikorsky KPI, 2011-2014.
Junior Researcher, Research Department of System Mathematics, Institute for Applied System Analysis, Igor Sikorsky KPI, 2014-2018.
Assistant, Department of Mathematical Methods of System Analysis, Institute for Applied System Analysis, Igor Sikorsky KPI, since 2018.
Junior Researcher (part time), Research Department of System Mathematics, Institute for Applied System Analysis, Igor Sikorsky KPI, since 2018.

FELLOWSHIPS, GRANTS, AND AWARDS

Researches were partially supported by:

Grants of the President of Ukraine

GP/F44/076 "Differential-operator inclusions for Earth data analysis problems", Order of President of Ukraine No188/2012-пп (October 6, 2012), 2012;
GP/F49/070 "Structural properties of attracting sets for some nonlinear boundary value problems of Geophysics and Mechanics", Order of President of Ukraine No316/2013-пп (October 4, 2013), 2013;
GP/F50/049 "Strong solutions of three-dimensional Navier-Stokes equations", Order of President of Ukraine No1038/2014-пп (September 24, 2014), 2014;
GP/F61/017 "Long-term forecasts for non-autonomous dissipative dynamical systems of different nature", Order of President of Ukraine No638/2015-пп (July 30, 2015), 2015.
GP/F66/38-2016 "On limit states of mathematical models for viscoelastic fluids", Order of President of Ukraine No197/2016-пп (May 19, 2016), 2016.
GP/F70/94-2017 "Nonlinear effects in climatology models", Order of President of Ukraine No 78/2017-пп (April 07, 2017), 2017.
GP/F75/127-2018 "Methods of nonlinear and multivalued analysis for problems of processing large data of different nature", Order of President of Ukraine No 105/2018-пп (July 16, 2018), 2018.

Grants of the NAS of Ukraine for young scientists:

F-2273 "Long-term forecasts for state functions and regularity of limit cycles of diffusion type controlled processes", Order of Presidium of National Academy of Science of Ukraine No 85 (June 12, 2013) and No 31 (February 12, 2014), 2013-2014;

F-2284 “The development and research of qualitative and structural properties for state functions of controlled multidimensional systems with nonlinearities of Caratheodory’s type”, Order of Presidium of National Academy of Science of Ukraine No 168 (June 17, 2014) and No 65 (March 2, 2015), 2015-2016.

F-2290 “Developing of methods for qualitative and numerical analysis of nonlinear systems, which describe the behavior of concentrated suspension”, Order of Presidium of National Academy of Science of Ukraine No 59 (March 14, 2018) and No 178 (June 14, 2017), 2017-2018.

Scholarship of the Cabinet of Ministers of Ukraine for Young Scientists (2018)

CLASSES

Discrete Mathematics, Mathematical Logic

JOURNAL ARTICLES AND BOOK CHAPTERS

1. Zgurovsky M.Z., Kasyanov P.O., Gorban N.V., Paliichuk L.S. Asymptotic translation uniform integrability and multivalued dynamics of solutions for non-autonomous reaction-diffusion equations // *Modern Mathematics and Mechanics. Fundamentals, Problems and Challenges. Springer Series: Understanding Complex Systems.* – 2019. – P. 413-423 – DOI: 10.1007/978-3-319-96755-4_21
2. Gorban N.V., Kapustyan O.V., Kasyanov P.O., Khomenko O.V., Paliichuk L.S., Valero J., Zgurovsky M.Z. Uniform attractors for vanishing viscosity approximations of non-autonomous complex flows // *JODEA.* – 2018. – Vol. 26, Iss. 2. – P. 1-12. – DOI: 10.15421/141807.
3. Zgurovsky M.Z., Kasyanov P.O., Gorban N.V., Paliichuk L.S. Qualitative properties and finite-dimensionality up to a small parameter of weak solutions for the Budyko–Sellers climate model [in Ukrainian] // *System research and information technologies.* – 2018. – Issue 4. – P. 7-18. – DOI: <https://doi.org/10.20535/SRIT.2308-8893.2018.4.01>
4. Zgurovsky M.Z., Gluzman M.O., Gorban N.V., Kasyanov P.O., Khomenko O.V., Paliichuk L.S. Uniform global attractors for non-autonomous dissipative dynamical systems // *DCDS. Series B.* – 2017. – Vol. 22, Iss. 5. – P. 2053-2065. – DOI: 10.3934/dcdsb.2017120.
5. Gorban N.V., Khomenko O.V., Paliichuk L.S., Tkachuk A.M. Long-time behavior of state functions for climate energy balance model // *DCDS. Series B.* – 2017. – Vol. 22, Iss. 5. – P. 1887-1897. – DOI: 10.3934/dcdsb.2017112.
6. Gorban N.V., Paliichuk L.S. Uniform Global Attractor for Nonautonomous Reaction–Diffusion Equations with Carathéodory’s Nonlinearity // *Dynamical Systems and Control, Studies in Systems, Decision and Control / V.A. Sadovnichiy and M.Z. Zgurovsky (eds.).* – 2016. – Vol. 69 – P. 265-272. – DOI: 10.1007/978-3-319-40673-2_13
7. Gorban N.V., Kapustyan O.V., Kasyanov P.O., Paliichuk L.S. On finite dimensional dynamics up to a small parameter of reaction-diffusion inclusion in unbounded domain // *Herald of the Dnepropetrovsk National University. Series: Modelling.* – 2016. – Vol. 24, № 8. – P. 20-25.
8. Zgurovsky M.Z., Kasyanov P.O., Paliichuk L.S., Tkachuk A.M. Dynamics of Solutions for Controlled Piezoelectric Fields with Multivalued “Reaction-Displacement” Law // *Continuous and Distributed Systems II: Theory and Applications. Studies in Systems, Decision and Control / M.Z. Zgurovsky and V.A. Sadovnichiy (eds.)* — 2015. — Volume 30. — P. 267-276. – DOI: 10.1007/978-3-319-19075-4_16
9. Kasyanov P.O., Paliichuk L.S., Tkachuk A.N. Method of multivalued operator semigroup to investigate the long-term forecasts for controlled piezoelectric [in Russian] // *Chebyshev Sbornik.* — 2014. — Volume 15, Issue 2. — P. 21-32.
10. Kasyanov P.O., Paliichuk L.S. Trajectory behavior of weak solutions of the piezoelectric problem with discontinuous interaction function on the phase variable [in Ukrainian] // *Research Bulletin of the National Technical University of Ukraine “Kyiv Polytechnic Institute”.* — 2014. — Issue 2. — P. 21-26.

11. Zgurovsky M.Z., Kasyanov P.O., Paliichuk L.S. Automatic feedback control for one class of contact piezoelectric problems // System Research and Information Technologies. — 2014. — Issue 1. — P. 56-68.
12. Gorban N.V., Kapustyan O.V., Kasyanov P.O., Paliichuk L.S. On Global Attractors for Autonomous Damped Wave Equation with Discontinuous Nonlinearity // Continuous and Distributed Systems: Theory and Applications. Solid Mechanics and Its Applications / M.Z. Zgurovsky and V.A. Sadovnichiy (eds.) — 2014. — Volume 211. — P. 221-237. – DOI: 10.1007/978-3-319-03146-0_16
13. Iovane G., Kapustyan O.V., Paliichuk L.S., Pereguda O.V. On random attractor of semilinear stochastically perturbed wave equation without uniqueness // System Research and Information Technologies. — 2013. — Issue 1. — P. 87-96

CONFERENCES

1. Gorban N.V., Paliichuk L.S. Qualitative analysis of Budyko-Sellers climatology model // Book of Abstracts of 4rd International Conference on memory of corresponding member of NAS of Ukraine V.S. Melnik “Nonlinear analysis and applications” (4-6 April, 2018, Kyiv, ESC “IASA”, NTUU “KPI”) – P. 27.
2. Paliichuk L.S. Dynamics of weak solutions for second-order autonomous evolution equation with discontinuous nonlinearity // Book of Abstracts of International Conference in Functional Analysis dedicated to the 125th anniversary of Stefan Banach (18–23 September 2017, Ivan Franko National University of Lviv, Lviv) – P. 100.
3. Gorban N.V., Paliichuk L.S., Khomenko O.V. Asymptotical behavior of solutions for non-autonomous dissipative evolution problems in infinite-dimensional spaces [in Ukrainian] // Book of Abstracts of 19-th International Conference «SAIT 2017» (22-25 May 2017, Kyiv, ESC «IASA» Igor Sikorsky KPI) – P. 57.
4. Gorban N.V., Khomenko O.V., Paliichuk L.S. Asymptotic behavior of solutions for climate energy balance model on manifold without boundary // Book of Abstracts of 19-th International Conference «SAIT 2017» (22-25 May 2017, Kyiv, ESC «IASA» Igor Sikorsky KPI) – P. 22.
5. Gorban N.V., Paliichuk L.S. Dynamics of solutions for non-autonomous reaction-diffusion equations with Caratheodory’s nonlinearity // Book of Abstracts of 18-th International Conference «SAIT 2016» (30 May – 02 June 2016, Kyiv, ESC «IASA» NTUU “KPI”) – P. 32.
6. Paliichuk L.S. The long-term forecasts for controlled piezoelectric fields // Book of Abstracts of 3rd International Conference on memory of corresponding member of NAS of Ukraine V.S. Melnik “Nonlinear analysis and applications” (1-3 April, 2015, Kyiv, ESC “IASA”, NTUU “KPI”) – P. 50.
7. Paliichuk L.S. On the limit cycles for controlled piezoelectric fields // Book of Abstracts of 17-th International Conference «SAIT 2015» (22-25 June 2015, Kyiv, ESC «IASA» NTUU “KPI”) – P. 34.
8. Paliichuk L.S. Qualitative behavior for one class of controlled piezoelectric fields with non-monotone potential // Book of Abstracts of 16-th International Conference «SAIT 2014» (26-30 May 2014, Kyiv, ESC «IASA» NTUU “KPI”) – P. 131.
9. Paliichuk L.S. Global attractors for autonomous wave equation with discontinuous nonlinearity [in Ukrainian] // Book of Abstracts of 15-th International Conference «SAIT 2013» (27-31 May 2013, Kyiv, ESC «IASA» NTUU “KPI”) – P. 149.
10. Paliichuk L.S. Qualitative behavior of semilinear stochastically perturbed wave equation without uniqueness // Book of Abstracts of 3rd Inter-University Scientific Conference of Young Scientists in Mathematics and Physics (25-27 April 2013, Kyiv, National university “Kyiv-Mohyla academy”) – P. 15-16.
11. Kasyanov P.O., Gorban N.V., Kapustyan O.V., Paliichuk L.S. Global attractors for autonomous wave equation with discontinuous nonlinearity [in Ukrainian] // Book of Abstracts of Ukrainian scientific and methodical conference “Modern scientific and methodological problems in high school” (26-27 June 2013, Kyiv, National university of food technologies) – P. 43

12. Paliichuk L.S. On global attractors for autonomous damped wave equation with discontinuous nonlinearity // Book of Abstracts of Crimea International Mathematical Conference «CIMC-2013» (September 22 – October 04 2013, Sudak, Taurida National V. Vernadsky University) – P. 69-70.

TUTORIALS

1. System analysis of stochastically distributed processes [in Ukrainian] / Zadoianchuk N.V., Kasyanov P.O., Gorban N.V., Paliichuk L.S. – Kyiv: NTUU «KPI», 2011.
2. Elements of Nonlinear analysis. Part I: Introduction to Applied functional analysis [in Ukrainian] / Kapustyan O.V., Gorban N.V., Paliichuk L.S., Fartushny I.D., Khomenko O.V. – Kyiv: NTUU «KPI», 2015.

PROFESSIONAL VISITS/ INTERNSHIPS

8th Elgersburg School 2016 on Mathematical Systems Theory, Elgersburg, Germany, 2016.