



Curriculum Vitae

Stanzhytskyi O.M.

ОСОБИСТА ІНФОРМАЦІЯ

Stanzhytskyi Oleksandr Mykolaiovych



📍 Department of General Mathematics, Taras Shevchenko National University of Kyiv, Volodymyrska, 64, Kyiv, 01601 Ukraine
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Account (profile) in scientometric databases [Scopus](#), [ResearcherID](#)

male sex | 20/03/1963 citizenship __Ukraine_____

| | |
|---------------------------------------|---|
| Scientific degree (degree, specialty) | Doctor of Physical and Mathematical Sciences |
| Academic title | Professor |
| Position | Head of the Department of General Mathematics |
| Department | General Mathematics |
| Faculty / Institute | Mechanics and Mathematics |

Academic disciplines in the teaching of which participated:

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|-------------------|--|
| In current year | <ol style="list-style-type: none"> 1. Calculus of variational and optimization methods, bachelor-4, lectures, practical classes (Faculty of Mechanics and Mathematics) 2. Actuarial and financial mathematics, master-1, lectures, practical classes (Faculty of Mechanics and Mathematics) 3. Mathematical modeling in natural sciences Master-1, lectures, practical classes (Faculty of Mechanics and Mathematics) 4. Differential equations with random perturbations, master-2, lectures (Faculty of Mechanics and Mathematics) 5. Higher Mathematics, Bachelor-2 (Faculty of Geography) |
| In previous years | <ol style="list-style-type: none"> 1. Calculus of variational and optimization methods, bachelor-4, lectures, practical classes (Faculty of Mechanics and Mathematics) 2. Actuarial and financial mathematics, master-1, lectures, practical classes (Faculty of Mechanics and Mathematics) 3. Mathematical modeling in natural sciences Master-1, lectures, practical classes (Faculty of Mechanics and Mathematics) 4. Differential equations with random perturbations, master-2, lectures (Faculty of Mechanics and Mathematics) |

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| | <p>5. Higher Mathematics, Bachelor-2 (Faculty of Geography)</p> <p>6. Stability of solutions of stochastic equations, master-2, lectures (Faculty of Mechanics and Mathematics)</p> <p>7. Asymptotic methods of nonlinear mechanics bachelor-4, lectures, (Faculty of Mechanics and Mathematics)</p> <p>8. Mathematical models of quantum mechanics bachelor-4, scientific seminar (Faculty of Mechanics and Mathematics)</p> |
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EXPERIENCE OF SCIENTIFIC AND SCIENTIFIC -- PEDAGOGICAL WORK

| Period (start last) | Stage (description) |
|----------------------------------|--|
| (Since July 1, 2003) | <p>Head of the Department of General Mathematics</p> <hr/> <p>Taras Shevchenko National University of Kyiv, Volodymyrska, 64, Kyiv, 01601 Ukraine</p> <p>Teaching, research and management of the department</p> <p>Field of activity or sector Education and Science</p> |
| (Since 1.07.1994 to 30.06.2003) | <p>Associate Professor of the Department of Integral and Differential Equations</p> <hr/> <p>Taras Shevchenko National University of Kyiv, Volodymyrska, 64, Kyiv, 01601 Ukraine</p> <p>Teaching, research and management of the department</p> <p>Field of activity or sector Education and Science</p> |
| (Since 1.01.1988 to 30.06) | <p>Assistant Professor of the Department of Integral and Differential Equations</p> <p>Taras Shevchenko National University of Kyiv, Volodymyrska, 64, Kyiv, 01601 Ukraine</p> <p>Teaching, research and management of the department</p> <p>Field of activity or sector Education and Science</p> |
| (Since 11.11.1987 to 31.12.1988) | <p>Assistant Professor of the Department of General Mathematics</p> <p>Taras Shevchenko National University of Kyiv, Volodymyrska, 64, Kyiv, 01601 Ukraine</p> <p>Teaching, research and management of the department</p> <p>Field of activity or sector Education and Science</p> |

TRAINING AND INTERNSHIP

| Period (start last) | Stage (description) |
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| (From 15.10.2016 to 15.11.2016) | <p>Institute of Mathematics of the National Academy of Sciences of Ukraine Kyiv</p> <p>Expanded knowledge of the theory of invariant measures</p> |
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PERSONAL SKILLS

| Name | Level (description) |
|--|--|
| Native language | Ukrainian |
| Foreign language | 1 Russian |
| Foreign language | 2 English B2 |
| Foreign language 3 | |
| Communication competence | <p>1. Gained good communication skills with students during classes at the university.</p> <p>2. The ability to apply mathematical results to the study of applied problems gained during the implementation of state budget research topics</p> |
| Organizational / managerial competence | Manage the department where 15 people work |
| Digital competences | Information processing: basic level |
| Other computer skills | |

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| Professional skills (not listed above) | <ol style="list-style-type: none"> 1. Well acquainted with the process of monitoring student learning. 2. Well acquainted with the process of preparation of dissertations of different levels. 12 persons have taken Ph.D. and 1 person has taken the habilitation. 3. I have the skills to work in specialized scientific councils |
| Areas of professional interest | Ordinary differential equations, stability theory of stochastic systems, stochastic differential equations in infinite dimension spaces, optimal control of stochastic and deterministic systems, difference equations and dynamic equations on time scales. |

ADDITIONAL INFORMATION

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| Name | (titles of publications, presentations, projects, conferences, seminars, names of awards and prizes, membership in academies, professional and scientific associations, etc.) |
| Publications | <p>Monographs:</p> <ol style="list-style-type: none"> 1. Samoilenko A.M., O.M. Stanzhytsky. Qualitative and asymptotic analysis of differential equations with random perturbations. - Singapore: World Scientific, 2011. - 322 p. 2. Samoilenko A.M, O.M. Stanzhytsky. Qualitative and asymptotic analysis of differential levels with random perturbations. - К .: Наукова думка, 2009. - 335 с. <p>Textbooks:</p> <ol style="list-style-type: none"> 1. Samoilenko AM, Kenzhebeyev KK, Stanzhitsky OM, Taran E.Yu. "Mathematical modeling", textbook. - К .: «Наукова думка», 2015. - 327 с. 2. Plakhotnyk VV, Stanzhitsky OM and other. "Higher Mathematics" is recommended by the Ministry of Education and Science as a basic textbook for higher education institutions in Ukraine. - Н .: "Folio", 2014. - 670 p <p>Manuals:</p> <ol style="list-style-type: none"> 1. Kapustyan OV, Perestyuk MO, Stanzhitsky OM Extreme problems: theory, examples, methods of solution. Textbook.– Kyiv: Ukrainian Orthodox Church "Kyiv University", 2019. 2. Perestyuk MO, Parasyuk IO, Stanzhitsky OM and other. Differential equations. Tasks of credit-module control. - Kyiv: Ukrainian Orthodox Church "Kyiv University", 2010. - 43 p. 3. Perestyuk MO, Stanzhitsky OM, Kapustyan OV, Loveikin YV Variational calculus and optimization methods. Tutorial. - Kyiv: Ukrainian Orthodox Church "Kyiv University", 2010. - 144 p. 4. Stanzhytsky OM, Gordynsky LD, Taran E.Yu. Mathematical modeling. A textbook for university students. - Kyiv: Ukrainian Orthodox Church "Kyiv University", 2006. - 125 p. 5. Perestyuk MO, Stanzhitsky OM, Kapustyan OV Extreme tasks. A textbook for university students. - Kyiv: Ukrainian Orthodox Church "Kyiv University", 2004. - 52 p. <p>Scientific articles :</p> <ol style="list-style-type: none"> 1. O. Stanzhytskyi, V. Mogylova, O. Lavrova. Optimal Control for Systems of Differential Equations on the Infinite Interval of Time Scale // Understanding Complex Systems, Approaches and Methods in Fundamental Mathematics and Mechanics.– 2021.– P. 395-405. 2. Matthias Hieber, Oleksandr Misiats and Oleksandr Stanzhytskyi. On the bidomain equations driven by stochastic forces// Discrete and Continuous Dynamical Systems – Series A (DCDS- A).– 2020.– V. 40, N. 11.– P. 6159–6177. 3. A. N. Stanzhitskii , S. T. Mynbayeva, N. A. Marchuk. Averaging in boundary-value problems for systems of differential and integrodifferential equations // Ukrains'kyi Matematychnyi Zhurnal.– 2020.– V. 72, No. 2.– P. 245-266. 4. Koval'chuk, T.V., Mogylova, V.V., Stanzhytskyi, O.M., Shovkoplyas, T.V. Application of the averaging method to the problems of optimal control of the impulse systems//Carpathian Mathematical Publications, 2020, 12(2), pp. 504–521 5. Oleksandr Stanzhytskyi, Olha Karpenko, Tetiana Dobrodzii. The relation between the existence of bounded global solutions of the differential equations and equations on time scales // Turkish Journal of Mathematics.– 2020.– V.44.– P. 2099 –2112. 6. O.Stanzhytskyi, O. Kichmarenko Optimal control problems for some classes of functional- |

| Name | (titles of publications, presentations, projects, conferences, seminars, names of awards and prizes, membership in academies, professional and scientific associations, etc.) |
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| | <p>differential equations on the semi-axis// Miskolc Mathematical Notes.– 2019.– Vol. 20, No. 2.– P. 1021–1037.</p> <p>7. O. Misiats, O. Stanzhytskyi, N. Yip. Invariant measures for reaction-diffusion equations with weakly dissipative nonlinearities // Stochastics: an International Journal of Probability.– Published online: 20 Nov 2019. https://doi.org/10.1080/17442508.2019.1691212</p> <p>8. O.M. Stanzhytskyi, K.K. Kenzhebaev, A.O. Tsukanova. Existence and uniqueness results, the Markovian property of solution for a neutral delay stochastic reaction-diffusion equation in entire space // Dynamic Systems and Applications. –2019. – V. 28, No. 1. – P. 19-46.</p> <p>9. O. Stanzhytskyi, V. Mogilova, A. Tsukanova On comparison results for neutral stochastic differential equations of reaction-diffusion type in $L^2(\mathbb{R}^d)$ // Modern Mathematics and Mechanics, Understanding Complex Systems.– 2019.– P. 351-395. https://doi.org/10.1007/978-3-319-96755-4_19</p> <p>10. O. Misiats, O. Stanzhytskyi, N. Yip. Asymptotic analysis and homogenization of invariant measures // Stochastics and Dynamics.– 2019. – V. 19, No. 2. – P. 1950015.</p> <p>11. O.M. Stanzhytskyi, T.V. Koval'chuk, V.V. Mohyl'ova. Application of the Method of Averaging to the Problems of Optimal Control Over Functional-Differential Equations// Ukrainian Mathematical Journal. – 2018. – V. 70, Issue 2. – P. 232-242.</p> <p>12. O. Kichmarenko, O. Stanzhytskyi Sufficient Conditions for the existence of Optimal Controls for Some Classes of Functional-Differential Equations // Nonlinear Dynamics and Systems Theory. – 2018. – V.18 (2). – P. 196-211.</p> <p>13. O. Stanzhytskyi, O.Lavrova, V.Mogylova, O.Misiats. Approximation of the Optimal Control Problem on an interval a Family of Optimization Problems on Time Scales // Nonlinear Dynamics and Systems Theory. – 2017. – V.17 (3). – P. 281-292.</p> <p>14. O. Stanzhytskyi, L. Bourdin, E.Trélat. Addendum to Pontryagin's maximum principle for dynamic systems on time scales // Journal of Difference Equations and Applications. – 2017. – V. 23 (10). – P. 1760-1763.</p> <p>15. M. Bohner, K. Kenzhebaev, O. Stanzhytskyi, O. Lavrova Pontryagin's maximum principle for dynamic systems on time scales// Journal of Difference Equations and Applications. – 2017. – V. 23, No. 7. – P. 1161–1189.</p> <p>16. V.Y. Danilov, O.E. Lavrova, O.M. Stanzhyts'kyi. Viscous Solutions of the Hamilton–Jacobi–Bellman Equation on Time Scales // Ukrainian Mathematical Journal. – 2017. – 69(7). – P. 1085-1106.</p> <p>17. O. Stanzhytskyi, A. Tsukanova. Existence and Uniqueness of the solutions to the Cauchy problem for the stochastic reaction-diffusion differential equation of neutral type // Journal of Mathematical Sciences. – 2017. – V. 226, N. 3. – P. 306-334.</p> <p>18. O. Misiats, O. Stanzhytskyi, N. Yip. Existence and uniqueness of invariant measures for stochastic reaction-diffusion equations in unbounded domains // J. Theor. Probab. – 2016. – V.29 (3). – P.996-1026.</p> <p>19. M. Bohner, O. Karpenko, O. Stanzhytskyi. Oscillation of solutions of second-order linear differential equations and corresponding difference equations // Journal of Difference Equations and Applications. – 2014. – V.20, N7. – P.1112-1126.</p> <p>20. O.M. Stanzhytskyi, E.A. Samoilenko. Coefficient conditions for existence of optimal control for systems of differential equations // Siberian Mathematical Journal. – 2014. – V. 55, N. 1. – P.156-170.</p> <p>21. A.N. Stanzhytskyi, E.A. Samoilenko and V.V. Mogilova. On the existence of an optimal feedback control for stochastic systems // Differential equations. – 2013. – V. 49, N11. – P.1456-1464.</p> |

| Name | (titles of publications, presentations, projects, conferences, seminars, names of awards and prizes, membership in academies, professional and scientific associations, etc.) |
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| | <p>22. O. Karpenko, O. Stanzhytskyi. The relation between the existence of bounded solutions of differential equations and the corresponding difference equations // Journal of Difference Equations and Applications. – 2013. – V.19, N 12. – P. 1967-1982.</p> <p>23. О.В. Карпенко, В.І. Кравець, О.М. Станжицький. Коливніть розв'язків лінійних функціонально – різницевих рівнянь другого порядку // Український Математичний Журнал. – 2013. – Т. 65, №2. – С. 226—235.</p> <p>24. M. Bohner, O. Stanzhytskyi, A. Bratochkina. Stochastic dynamic equations on general time scales // Electronic Journal of Differential Equations. – 2013. – N 57. – P.1-15.</p> <p>25. О.М. Станжицький, О.О. Самойленко. Коефіцієнтні умови існування оптимального керування для систем диференціальних рівнянь// Нелинейные колебания. – 2013. – Т.16, №1. – С. 125-132.</p> <p>26. V.I. Kravets, V.V. Mogilova, O.M. Stanzhytskyi. Optimal control of linear and nonlinear stochastic systems with quadratic on control cost functional // Functionnal differential Equations. – 2011. – V. 18, N 3-4. – P. 255-266.</p> <p>27. А.Н. Станжицкий, А.П. Кренивич, И.Г. Новак. Асимптотическая эквивалентность линейных стохастических систем Ито и колеблемость решений линейных уравнений второго порядка//Дифференциальные уравнения. – 2011. – т. 47, №6. – С. 796-810.</p> <p>28. А.Н. Станжицкий,Т.В. Добродзий Исследование задач оптимального управления на полуоси методом усреднения//Дифференциальные уравнения. – 2011. – т. 47, №2. – С. 264-277.</p> <p>29. A.N. Stanzhytskyi, N. Gorban. On the dynamics of solutions for autonomous reaction-diffusion equation in \mathbb{R}^n with multivalued nonlinearity. //Укр.мат. весник. – 2009. – т.6, №2. – С. 235–251.</p> <p>30. A.M. Samoilenko, N.I. Mahmudov, O.M. Stanzhetskii. Existence, uniqueness and controllability results for neutral FSDES in Hilbert spaces // Dynamic Systems and Applications. – 2008. – 17. – P. 53–70.</p> <p>31. А.М. Самойленко, А.Н. Станжицкий, Н.И. Махмудов. Метод усреднения и двухсторонние ограниченные решения стохастических систем Ито // Дифференциальные Уравнения. – 2007. – 43, № 1. – С. 52–63.</p> <p>32. А.М. Самойленко, А.Н. Станжицкий. Об усреднении дифференциальных уравнений на бесконечном интервале // Дифференциальные Уравнения.– 2006.– 42, № 4. – С. 476–482.</p> <p>33. О.М. Станжицький, А.М.Ткачук. Дисипативність диференціальних та відповідних їм різницевих рівнянь // Український Математичний Журнал. – 2006. – 58, № 9. – С. 1249–1256.</p> <p>34. О.М. Станжицький, А.М. Ткачук. Про зв'язок між властивостями розв'язків різницевих та відповідних диференціальних рівнянь // Український Математичний Журнал. – 2005. – 57, № 7. – С. 989–996.</p> <p>35. A. M. Samoilenko, O.M. Stanzhytskyi and A.M. Ateiwi. On invariant tori for a stochastic Ito systems // Journal of Dynamics and Differential Equations. – 2005. – 17, # 4. – P. 737–758.</p> <p>36. О.М. Станжицький. Дослідження експоненціальної дихотомії стохастичних систем Іто за допомогою квадратичних форм // Український Математичний Журнал. – 2001. – 53, № 11. – С. 1545–1555.</p> <p>37. А.Н. Станжицкий. О принципе сведения А.М. Самойленко для дифференциальных уравнений со случайными возмущениями // Дифференциальные Уравнения. – 2001.– 37,</p> |

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| Name | (titles of publications, presentations, projects, conferences, seminars, names of awards and prizes, membership in academies, professional and scientific associations, etc.) |
| | № 2.– C. 218–222. |
| Membership in organizations | Academician of the Academy of Sciences of the Higher School of Ukraine |