

PERSONAL INFORMATION



NINA KASIMOVA

📍 81, Yulia Zdanovska Str., app. 507, Kyiv, 03189, Ukraine

☎ (+38 044) 259-05-90 📠 (+38096) 922-54-30

✉ kasimova@knu.ua , zadoianchuk.nv@gmail.com

<https://www.scopus.com/authid/detail.uri?authorId=22939495000>

<https://orcid.org/0000-0002-6032-0343>

<https://scholar.google.com/citations?hl=uk&user=FBZO0DkAAAAJ>

<https://www.researchgate.net/profile/Nina-Kasimova>

Sex Female | Date of birth 29/09/1982 | Nationality Ukraine

Languages Ukrainian (native), English (B2)

AFFILIATION

Integral and Differential Equations Department,
Mechanics and Mathematics Faculty,
Taras Shevchenko National University of Kyiv

SCIENTIFIC INTERESTS

Multivalued and infinite-dimensional analysis, nonlinear boundary value problems, qualitative theory of differential equations and inclusions, theory of global and trajectory attractors, optimal control theory for degenerate elliptic and parabolic variational inequalities, optimal control problems for systems of differential inclusions with fast-oscillating coefficients

WORK EXPERIENCE

09/2006 – 06/2008

Assistant Professor

Faculty of Management and Marketing,
National Technical University of Ukraine
“Igor Sikorsky Kyiv Polytechnic Institute”

09/2008 – 12/2012

Assistant Professor

Integral and Differential Equations Department, Mechanics and Mathematics Faculty,
Taras Shevchenko National University of Kyiv

12/2012 – Present

Associate Professor

Integral and Differential Equations Department, Mechanics and Mathematics Faculty,
Taras Shevchenko National University of Kyiv

EDUCATION AND DEGREES

2000 – 2006

Student

Integral and Differential Equations Department , Mechanics and Mathematics Faculty,
Taras Shevchenko National University of Kyiv

2006 – 2009

Postgraduate Student

Integral and Differential Equations Department , Mechanics and Mathematics Faculty,
Taras Shevchenko National University of Kyiv

10/03/2010

Candidate of Physical and Mathematical Sciences (PhD)

PhD in Mathematics, Taras Shevchenko National University of Kyiv

- Thesis "Differential-Operator Equations and Inclusions with Maps of w_λ -Pseudomonotone Type", Diploma DK 057320

MEMBERSHIPS

2022 – Present

Kyiv Mathematical Society (member)

TEACHING COURSES

National Technical University
of Ukraine "Igor Sikorsky Kyiv
Polytechnic Institute"
(2006-2008)

- Econometrics
- Mathematical Programming
- Operation Research

Taras Shevchenko National
University of Kyiv
(2008-present)

- Differential Equations
- Mathematical Economics
- Modeling Economic Systems
- Modern Applied Mathematics
- Qualitative and analytical methods of research of differential equations
- Mathematics II

LIST OF SELECTED PUBLICATIONS OF NINA KASIMOVA

Monographs:

1. Zgurovsky, M.Z.; Kasyanov, P.O.; Kapustyan, O.V.; Valero, J.; Zadoianchuk, N.V. Evolution inclusions and variation Inequalities for earth data processing III. Long-Time Behavior of Evolution Inclusions Solutions in Earth Data Analysis (English) Series: Advances in Mechanics and Mathematics, Vol. 27. Berlin: Springer, 2012, XLI, 330 p. ISBN 978-3-642-28511-0

Selected papers in Journals:

1. M.O. Perestyuk, P.O. Kasyanov, N.V. Zadoyanchuk On Faedo-Galerkin method for evolution inclusions with W_{λ_0} -pseudomonotone maps // Memoirs on Differential Equations and Mathematical Physics – 2008. – Vol. 44. – P. 105-132.
2. Pavel O. Kasyanov, Valeriy S. Melnik, Sperantsa Toscano, Nina Zadoyanchuk. Periodic Solutions of Evolutionary Equations in the Class of Nonreflexive Banach Spaces // Journal of Automation and Information Sciences – 2008. – Volume 40, 2008 Issue 9. – P.1-19
3. Perestyuk M.O., Kasyanov P.O., Zadoyanchuk N.V. On solvability of second order evolution inclusions with Volterra type operators // Miskolc Mathematical Notes. – 2008. – Vol. 9, No. 2. – P. 119-135.
4. N.V. Zadoyanchuk, P.O. Kasyanov. Faedo–galerkin method for second-order evolution inclusions with W_{λ_0} -pseudomonotone mappings // Ukr. Math. J. - 2009. – Vol. 61., Issue 2. – P. 236-258.
5. N.V. Zadoyanchuk, P.O. Kasyanov. Singular-perturbation method for nonlinear second-order evolution inclusions with Volterra operators // Nonlinear Oscillations. – 2009. – Vol. 12, Issue 1. – P. 27-43.
6. N.V. Zadoyanchuk, P.O. Kasyanov. Analysis and control of second-order differential-operator inclusions with $+$ -coercive damping // Cybernetics and Systems Analysis. – 2010. – Vol.46., Issue 2. – P. 305-313.
7. P.O. Kasyanov, L. Toscano, N.V. Zadoyanchuk. Long-Time Behaviour of Solutions for Autonomous Evolution Hemivariational Inequality with Multidimensional «Reaction-Displacement» Law// Abstract and Applied Analysis. – 2012. - Vol. 2012. - doi:10.1155/2012/450984
8. P.O. Kasyanov, M.Z. Zgurovsky, N.V. Zadoyanchuk. Long-time behavior of solutions for quasilinear hyperbolic hemivariational inequalities with application to piezoelectricity problem // Applied Mathematical Letters. – 2012. – Vol. 25, Issue 10. - P.1569-1574
9. P.O. Kasyanov, E.A. Feinberg, N.V. Zadoyanchuk. Average Cost Markov Decision Processes with Weakly Continuous Transition Probabilities // Mathematics of Operations Research. – 2012. – Volume 37, Issue 4. – P. 591-607.
10. Feinberg E.A., Kasyanov P.O., Zadoianchuk N.V. Berge's theorem for noncompact image sets // Journal of Mathematical Analysis and Applications. – 2013. – Volume 397. – P.255-259.
11. P.O. Kasyanov, L. Toscano, N.V. Zadoyanchuk. Regularity of weak solutions and their attractors for a parabolic feedback control problem // Set-Valued and Variational Analysis. – 2013. – Volume 21, Issue 2. – P.271-282.
12. P.O. Kasyanov, L. Toscano, N.V. Zadoyanchuk. A criterion for the existence of strong solutions for the 3D Navier-Stokes equations // Applied Mathematics Letters. – 2013. – Volume 26. – P.15-17.

13. Feinberg E.A., Kasyanov P.O., Zadoianchuk N.V. Berge's theorem for noncompact image sets // *Journal of Mathematical Analysis and Applications*. – 2013. – Volume 397. – P.255-259.
14. Kasyanov, P.O., Toscano, L., Zadoianchuk, N.V. Topological properties of strong solutions for the 3D Navier-Stokes equations // *Continuous and Distributed Systems: Theory and Applications, Series: Solid Mechanics and its Applications*. – 2014. – Volume 211. – P. 181-187.
15. Feinberg E.A., Kasyanov P.O., Zadoianchuk N.V. Fatou's lemma for weakly converging probabilities // *Theory of Probability & Its Applications*. – 2014. – Volume 58, Issue 4. – P.683-689.
16. N.V. Zadoianchuk. On the Existence of Strong Solutions for a Degenerate Parabolic Inequality with Mixed Boundary Conditions // *Journal of Mathematical Sciences* . – 2016. – Vol.217, Issue 4. – P. 441-455.
17. Kaimova N.V. Optimal Control Problem for Some Degenerate Variation Inequality: Attainability Problem // *Journal of Optimization, Differential Equations and Their Applications (JODEA)*. – 2018. – Volume 26, Issue 2. – P. 37-54.
18. Kaimova N.V. Solvability Issue for Optimal Control Problem in Coefficients for Degenerate Parabolic Variational Inequality // *Part of the Understanding Complex Systems book series (UCS). Contemporary Approaches and Methods in Fundamental Mathematics and Mechanics*, 2021, pp 457-473.
19. Kichmarenko O.D., Kapustian O.A., Kasimova N.V., Zhuk T.Yu. Optimal Control Problem for Differential Inclusion with fast-oscillating coefficients on the semi-axes // *Nonlinear Oscillations*. – 2021. – Vol.24, Issue 3. – P. 363-372
20. Zhuk T., Kasimova N., Ryzhov A. Application of the Averaging Method to the Optimal Control Problem of Non-Linear Differential Inclusions on the Finite Interval // *Axioms. Special Issue Mathematical Control and Applications*. – 2022. - 11(11) 653.