

## Andrii V. Anikushyn, PhD

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CONTACT INFORMATION	Department of Computer Sciences and Cybernetics Taras Shevcheno National University of Kyiv 64/13, Volodymyrska Street City of Kyiv, 01601, Ukraine	<i>Cell phone:</i> +380 63 7103420 <i>E-mail:</i> anik_andrii@univ.kiev.ua
CITIZENSHIP	Ukraine	
RESEARCH INTERESTS	Partial (integro-)differential equations (well-posedness and regularity, qualitative behavior, optimal control, numerical methods, etc.), functional analysis (linear operators, generalized solutions, barrelled spaces), optimization (optimal control)	
EDUCATION	<b>Taras Shevcheno National University of Kyiv</b> , Kyiv, Ukraine  Ph.D., Applied Mathematics, April 2012 <ul style="list-style-type: none"><li>• Thesis topic: Quantitative description and numerical optimization of processes governed by linear integro-differential equation</li><li>• Advisor: Professor Dmytro A. Nomirovskyi, Ph.D.</li><li>• Areas of study: Partial integro-differential equations, functional analysis</li></ul> M.S., Applied Mathematics, June 2007 <ul style="list-style-type: none"><li>• With honors</li><li>• Thesis topic: Generalized solution of abstract linear equations in normed spaces</li><li>• Advisor: Professor Dmytro A. Nomirovskyi, Ph.D.</li><li>• Areas of study: Functional analysis, linear operator equations</li><li>• Major in Applied Mathematics</li><li>• Minor in Computer Sciences</li></ul> B.S., Applied Mathematics, June 2006 <ul style="list-style-type: none"><li>• With honors</li><li>• Major in Applied Mathematics</li><li>• Minor in Computer Sciences</li></ul>	
AWARDS	International Mathematics Competition for University Students <ul style="list-style-type: none"><li>• Second prize, 2004</li><li>• Honorable mention, 2006</li></ul> Ministry of Education and Science of Ukraine <ul style="list-style-type: none"><li>• Research grant “Modeling and Optimization of Differential and Integro-Differential Systems with Distributed Parameters”, 2015</li></ul> Travel Grants <ul style="list-style-type: none"><li>• Travel Grant from the Abdus Salam International Centre for Theoretical Physics, 2017</li><li>• Travel Grant from Karlsruhe Institute of Technology, 2016</li><li>• Travel Grant from the 7th ECM, 2016</li><li>• Travel Grant from the University of Naples “Federico II”, 2016</li><li>• Travel Grant from the University of Konstanz, 2015</li></ul>	
PROFESSIONAL EXPERIENCE	<b>Taras Shevcheno National University of Kyiv</b> , Kyiv, Ukraine  <i>Lecturer</i> <span style="float: right;"><b>September 2013 to present</b></span>	

- Lecturer in Calculus (September 2013 to present)
- Lecturer in Functional Analysis (January 2015 to present)
- Instructor in Calculus, Functional Analysis and Complex Analysis

*Graduate Assistant/Instructor*

**September 2007 to 2013**

- Instructor in Calculus, Functional Analysis and Complex Analysis

*Researcher*

**February 2015 to December 2015**

- co-PI, Research Grant from the Ministry of Education and Science of Ukraine “Modelling and Optimization of Differential and Integro-Differential Systems with Distributed Parameters”

SELECTED  
PUBLICATIONS

1. A. Anikushyn, M. Pokojovy *Multidimensional Thermoelasticity for Nonsimple Materials – Well-Posedness and Long-Time Behavior*, *Applicable Analysis*, Vol. 96 (2017), pp. 1561–1585
2. A. Anikushyn, D. Nomirovskiy, *Qualitative analysis of linear differential pseudo-hyperbolic equations in some classes of distributions*, *Bulletin of Taras Shevchenko National University of Kyiv. Series: Phys. and Math. Sciences*, No. 2 (2015), pp. 31–36 (in Ukrainian)
3. A. Anikushyn, *On generalized solvability of the one integro-differential equation*, *J. Num. and App. Math.*, No. 2 (2014), pp. 25–32 (in Ukrainian)
4. A. Anikushyn, A. Hulianytskyi *Generalized solvability of parabolic integro-differential equations*, *Differential Equations*, Vol. 50 (2014), pp. 98–109
5. A. Anikushyn, *Generalized optimal control for systems described by linear integro-differential equations with nonnegative definite integral operators*, *Journal of Automation and Information Sciences*, Vol. 46 (2014), pp. 58–67
6. A. Anikushyn, *Generalized solvability of linear hyperbolic integro-differential equation*, *Bulletin of Taras Shevchenko National University of Kyiv. Series: Phys. and Math. Sciences*, No. 4 (2013), pp. 60–65 (in Ukrainian)
7. A. Anikushyn, *A barrelledness of pre-Hilbert spaces*, *J. Num. and App. Math.*, No. 4(2012), pp. 51–55 (in Ukrainian)
8. A. Anikushyn, D. Nomirovskiy, *Generalized solutions for linear operators with weakened a priori inequalities*, *Ukrainian Mathematical Journal*, Vol. 62 (2011), pp. 1175–1186
9. A. Anikushyn, *On relations between the a priori inequalities and the weak a priori inequalities*, *J. Num. and App. Math.*, No. 4 (2010), pp. 3–8 (in Ukrainian)
10. A. Anikushyn, *Optimal control for parabolic-like integro-differential system*, *J. Num. and App. Math.*, No. 3(2010), pp. 3–16 (in Ukrainian)
11. A. Anikushyn, *Generalized solvability of linear elliptic-like integro-differential equation*, *Bulletin of Taras Shevchenko National University of Kyiv. Series: Phys. and Math. Sciences*, No. 3 (2010), pp. 163–168 (in Ukrainian)
12. A. Anikushyn, D. Nomirovskiy, *Trajectory and final controllability of hyperbolic systems for some classes of distributions*, *Bulletin of Taras Shevchenko National University of Kyiv. Series: Phys. and Math. Sciences*, No. 3 (2008), pp. 119–114 (in Ukrainian)
13. A. Anikushyn, *Characteristics of generalized solutions of linear operator equations in Banach spaces*, *Bulletin of Taras Shevchenko National University of Kyiv. Series: Phys. and Math. Sciences*, No. 4 (2006), pp. 137–144 (in Ukrainian)

SUBMITTED  
JOURNAL  
PUBLICATIONS

1. A. Anikushyn, H. Granishak *Analogue of the Galerkin method for a fourth-order integro-differential operator* (in Ukrainian)

## BOOKS

Anikushyn A.V., Granishak H.M., Hulianitskyi A.L., Nomirovskyi D.A. Modeling and Optimization of Process Described by Linear Integro-Differential Equation (in Ukrainian), Kyiv, 2015, pp. 1–134.

SELECTED BOOKS  
AND PAPERS IN  
PREPARATION

1. A. Anikushyn, M. Pokojovy, Well-posedness and stability for Maxwell equations with semilinear boundary delay (paper, expected 2017)
2. A. Anikushyn, M. Pokojovy, On quasilinear Maxwell equations with space-nonlocal material laws (paper, expected 2017)
3. A. Anikushyn, V.V. Semenov, Problems in Functional Analysis (book, in Ukrainian, expected 2017)
4. A. Anikushyn, I.N. Aleksandrovich, O.I. Molodtsov, D.A. Nomirovskyi, B.V. Rublyov, V.V. Semenov, Problems in Mathematical Analysis (book, in Ukrainian, expected 2017)

CONFERENCE  
PUBLICATIONS

1. A. Anikushyn, *Well-Posedness of multidimensional thermoelastic system for nonsimple materials*, 5th International Conference for Young Scientists on Differential Equations and Applications dedicated to Ya. B. Lopatynsky, Kyiv 2016
2. A. Anikushyn, H. Granishak *On a weak solvability of a hyperbolic integro-differential equation*, 5th International Conference for Young Scientists on Differential Equations and Applications dedicated to Ya. B. Lopatynsky, Kyiv 2016
3. A. Anikushyn, *Weak solvability and optimal control for a class of partial integro-differential equations*, International Conference on Differential Equations Dedicated to the 110th Anniversary of Ya. B. Lopatynsky, Lviv 2016
4. A. Anikushyn, H. Granishak *Analogue of the Galerkin method for one equation of 4th order*, 8th International Conference “Numerical and Applied Mathematics”, Kyiv 2015
5. A. Anikushyn, *Weak solvability of generalized heat equation*, 7th International Conference “Numerical and Applied Mathematics”, Kyiv 2014
6. A. Anikushyn, H. Granishak, *Generalized solvability of one integro-differential equation of 4th order*, 6th International Conference “Numerical and Applied Mathematics”, Kyiv 2013
7. A. Anikushyn, *One result about barrelledness of unitary spaces*, International Conference dedicated to 120-th anniversary of Stefan Banach, Lviv 2012
8. A. Anikushyn, *A barrelledness of pre-Hilbert spaces*, 5th International Conference “Numerical and Applied Mathematics”, Kyiv 2012
9. A. Anikushyn, *A priori inequalities for integro-differential operators of hyperbolic type*, International Conference “Dynamical system modeling and stability investigation”, Kyiv 2011
10. A. Anikushyn, *Analogue of the Galerkin method for linear integro-differential equations with non-negative integral operators*, 4th International Conference “Numerical and Applied Mathematics”, Kyiv 2011
11. A. Anikushyn, *On relation between a priori and weak a priori inequalities for linear operators*, International Conference on Functional Analysis dedicated to the 90-th anniversary of V.E. Lyantse, Lviv 2010
12. A. Anikushyn, D. Nomirovskyi, *Generalized Optimal Control for Systems Described by Linear integro-Differential Equations with Nonnegative Definite Integral Operators*, International Conference “Differential equations and applications”, Lviv 2010
13. A. Anikushyn, D. Nomirovskyi, *Generalized solutions for linear operators with weakened a priori inequalities*, 2nd Ukrainian Mathematical Congress, Kyiv 2009

SCHOOL AND  
WORKSHOP  
PARTICIPATION

1. Advanced School & Workshop on Nonlocal Partial Differential Equations and Applications to Geometry, Physics and Probability, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, May-June, 2017

2. Oberwolfach Seminar: Mathematical Theory of Evolutionary Fluid-Flow Structure Interactions, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, November, 2016
3. Summer School on Wave Phenomena: Analysis and Numerics, Karlsruhe Institute of Technology, Karlsruhe, Germany, September, 2016
4. School and Workshop “PDEs and applications”, University of Naples “Federico II”, Naples, Italy, February, 2016

#### RESEARCH VISITS

1. Karlsruhe Institute of Technology, Germany, July, November, 2016
2. Charles University in Prague, Czech Republic, January-February, 2016
3. University of Konstanz, Germany, January-March, 2015

#### SELECTED

##### SEMINAR TALKS

1. Multidimensional thermoelastic system for nonsimple materials: Well-posedness and long-time behavior, Karlsruhe Institute of Technology, Germany, November, 2016
2. Generalized solvability of linear integro-differential equations, University of Konstanz, Germany, February, 2015
3. Optimal control for systems which are described by linear integro-differential equations, National Technical University of Ukraine Kiev Polytechnic Institute, Ukraine, October, 2011
4. Numerical methods for optimization and modelling of processes which are described by linear integro-differential equations, Taras Shevchenko National University of Kiev, Ukraine, April, 2011

#### SELECTED

##### STUDENTS

##### ADVISING

#### **Hrystyna Granishak**

Master’s thesis at Taras Shevchenko National University of Kyiv (Ukraine). Weak solvability of a hyperbolic integro-differential equations (2016)

#### FURTHER

##### ACTIVITIES

#### **Ukr.net LTD**, Kyiv, Ukraine

*Developer*

**September 2005 to January 2007**

- Web-developer.
- Perl, PHP developer.

#### **Ukrainian Physics and Mathematics Lyceum**, Kyiv, Ukraine

*Additional classes in Olympiad mathematics*

**October 2002 to present**

- Preparing and coaching students for participation in various mathematical olympiads and competitions

*Teacher of mathematics*

**September 2007 to present**

#### **Ukrainian Mathematical Competition,**

*The final stage of Ukrainian National Mathematical Olympiad* **September 2008 to present**

- Jury member

*Kyiv Mathematical Olympiad*

**September 2002 to present**

- Jury member, deputy chair
- Organizer

*Ukrainian Mathematical Tournament*

**September 2008 to present**

- Jury member, deputy chair
- Organizer

*Ukrainian Summer Mathematical Camp*

**August 2015 to present**

- Principal organizer

#### TECHNICAL SKILLS

Programming: C, C++, Pascal, Perl, PHP, SQL, Maple

Applications:  $\text{\TeX}$ ,  $\text{\LaTeX}$ , Microsoft Office

#### REFERENCES

1. Sergiy Lyashko, PhD, Professor, Chair of Computational Mathematics  
Department of Computer Sciences & Cybernetics, Taras Shevchenko National University  
of Kyiv, Ukraine  
e-mail: silsil1@yandex.ru, phone: +38 093 5772300
2. Andriy Prymak, PhD, Associate Professor  
Department of Mathematics, University of Manitoba, Canada  
e-mail: Andriy.Prymak@umanitoba.ca, phone: +1 204 480 1246