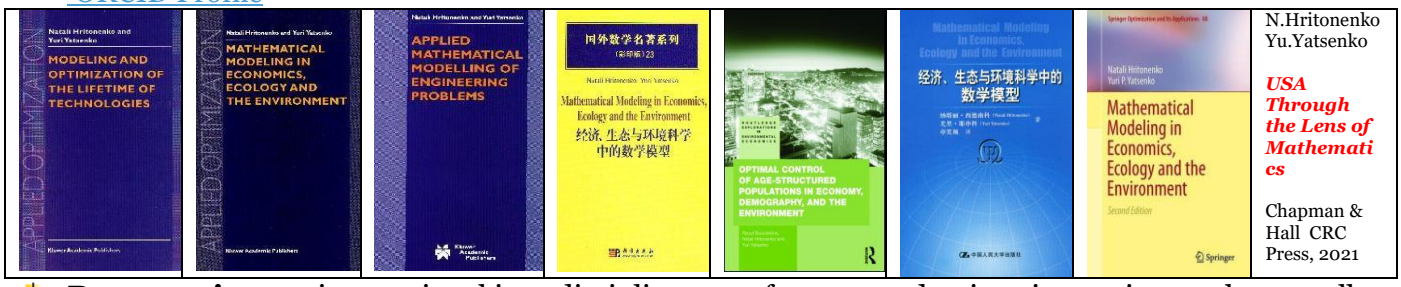
CURRICULUM VITAE

Name	Natali **HRITONENKO**
Academic degrees	**M.S. & Ph.D. in Applied Mathematics**
Position	Int Associate Dean of Marvin D. and June Samuel Brailsford College of Arts & Sciences Professor, Department of Mathematics Prairie View A&M University, Prairie View, TX 77446-519
Office e-mail & phone	nahritonenko@pvamu.edu 936-261-1978
Home Address	15434 Tysor Park Ln, Houston TX 77095; ph. 832-977-7761

HIGHLIGHTS

- **New scientific results** in mathematical modeling, optimal control theory, theory and applications of integral and differential equations, theory of discrete and continuous dynamic systems; mathematical economics, environmental sciences, biomathematics, environmental economics, operations research, forestry, sustainable development, climate change, agriculure.
- **International interdisciplinary** collaborative research.
- **Publications:** eight monographs, some of them are used as textbooks or translated to other languages; over 160 publications on research results and mathematical education.
- **Research web profiles:** Google Scholar profile; ResearchGate; SCOPUS profile; Mendeley profile; ORCID Profile



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Chapman & Hall CRC Press, 2021

- **Presentations** at international interdisciplinary conferences and university seminars; plenary talks, member of conference organizing committees; chair and organizer of sessions; plenary speaker.
- **Editorial activity:** Member of the editorial board of seven international interdisciplinary journals; editor of special issues and conference proceedings; reviewer for more than 60 journals.
- **Panelist** of NSF-DMS Control Theory/Optimization; MAA NREUP, Kazakh Academy, Swiss SF.
- **Mathematical Education**: Integration of scientific research and learning, creative scholastic approaches in STEM education; mentoring students and pre-service mathematics teachers.
- **Teaching** a wide spectrum of graduate/undergraduate courses in Mathematics, Applied Mathematics, Mathematical Education, Statistics; mentoring students, ACT preparation.
- **Working experience** in multicultural environment, with K-12 teachers; creating partnerships with school districts and across-university disciplinary groups.
- **Students' Achievements**: Publications, 1st and 2nd prizes for their presentations and research.
- **Committees:** chair or member of various university and department committees; students' advisor.
- **Volunteer** at Science Fairs, Houston Arboretum Nature Center, and Church Sunday School
- **Listed** in the Marques Who's in Science and Engineering; Who's Who in America, Who's Who in the World, Who's Who in American Education, Who's Who of American Women, and many others; Recipient of *Awards for Excellence in Teaching and Research*.

EDITORIAL ACTIVITY

Member of the Editorial Boards of

- Journal of Biological Systems https://www.worldscientific.com/page/jbs/editorial-board
- Applications and Applied Mathematics (AAM): An International Journal https://www.pvamu.edu/aam/board-of-editors/
- International Journal of Ecology & Development http://www.ceser.in/ceserp/index.php/ijed/pages/view/eb-ijed
- Frontiers in Education https://www.frontiersin.org/journals/education#editorial-board
- International Journal of Ecological Economics and Statistics http://www.ceser.in/ceserp/index.php/ijees/pages/view/eb-ijees
- International Journal of Statistics and Economics http://www.ceser.in/ceserp/index.php/bse/pages/view/eb-ijse
- Journal of Computational and Applied Mathematics, Kiev University
- Involve, a journal of mathematics (2003-2020)
- Mathematical Populations Studies (2005-2020)

Editor of special issues

- "Analytic Modeling in Biology and Medicine" of *J. of Biological Systems*, Vol. 22, No. 2, 2014
- "Optimal control, controllability and stabilizability" of *Mathematical Modelling of Natural Phenomena*, 9:4, 2014,
- "Age and Size- Structured Population Dynamics", *Mathematics Population Studies*, 15(2), 2008
- "Modelling of Evolving Systems in Economics and Life Sciences", *International Journal of Ecology & Development*, Winter 2007
- "Modelling of Evolving Systems in Ecology and Economics", *International Journal of Ecology & Development*, Fall 2006
- *Proceedings of the 2005 International Conference on Scientific Computing*, World Congress on Applied Computing, Las Vegas, June, 2005

Reviewer

- for more than 60 journals, such as

  ◆Mathematical Reviews, ◆J. of Mathematical Analysis and Applications, ◆ J. of Optimization Theory and Applications, ◆ J. of Economic Dynamics and Control, ◆ J. of Applied Mathematics and Computing, ◆ J. of Applied Mathematics and Computation, ◆J. of Biological Studies, ◆J. of Biological Systems, ◆J. of Mathematical Economics, ◆Mathematical Populations Studies, ◆J. of Engineering Mathematics, ◆Int. J. of Supercomputing, ◆Int. J. of Operations and Quantitative Management, ◆Applied Mathematical Modeling, ◆Nonlinear Analysis, ◆Macroeconomic Dynamics, ◆Applied Mathematics Letters, and many others

- for textbook and book proposals for different publishing companies, e.g.

  ◆*College Algebra*, by Young, Wiley, 2015; ◆*Methods of Solving Nonstandard Problems* by Ellina Grigorieva, for Birkhäuser Science, Springer, 2015, and many others

INTERNATIONAL INTERDISCIPLINARY COLLABORATION

- **Belgium:** CORE and Department of Economics, Universite Catholique de Louvain
  - economic-environmental models with endogenous technological change
  - optimal control problems of sustainable industrial development with energy restrictions and scarcity of natural resources
  - modeling of optimal investments into environmental abatement and adaptation for long-term climate policies and environmental protection
- **Spain:** Department of Economics, Universitat de Girona
  - modeling and optimal control in size-structured populations
  - optimal vintage investment and disinvestment of a firm
  - sustainable management of forests with benefits from carbon sequestration and timber
  - analysis of size-structured models
  - impact of climate changes and natural disturbances on forest development
  - sustainable management of soil and landlord-tenant relationships in agriculture
- **France:** Centre de la Vieille Charite, Marseille-Aix Université; Rennes School of Business, Rennes
  - modeling and optimal control in age-structured population
  - vintage capital models with endogenous technological change, labor and energy restrictions, and environmental quotas
  - optimal control problems with scarcity of natural resources, environmental CO_2 quotas
  - modeling of rational investments in research and development in modern society
- **Ukraine:** College of Cybernetics, Kiev State University
  - estimating the impact of IT on production and resource consumption with sustainable development control objectives;
  - modeling groundwater / surface flows and transport of contaminants.
- **Kazakhstan:** Department of Information Systems, Eurasian National University
  - modelling of IT replacement and sustainable economic-technological development
- **Greece:** Department of Economics, Athens University of Economics and Business
  - service life and replacement of vintage equipment under embodied technical change.
- **Australia:** Centre for Industrial and Applied Mathematics, University of South Australia
  - minimizing greenhouse emissions through selecting the most judicial mix of technologies
- **Japan:** Department of Mathematics, Kanazawa University
  - modeling and investigation of size-dependent populations with space diffusion
  - optimal control and optimization of integral models with delay
- **Finland:** The Finnish Forest Research Institute
  - optimal control of a nonlinear model of fish population with delays **(**North Sea herring**).**
- **Jamaica:** Department of Mathematics and Computer Sciences, University of the West Indies
  - analysis of age-species population models with stochastic parameters.
- **The Netherlands**: Faculty of Economics and Business, University of Groningen
  - theoretical analysis of discrete optimization algorithms.

INVITED INTERNATIONAL VISITS/ VISITING PROFESSOR

- Centre de la Vieille Charite, Marseille, **France**, June **2014**, May **2012**; June **2020, 2021** (postpone due to COVID-19) supported by Marseille-Aix University
- Institute of Science and Engineering, Kanazawa University, **Japan**, May **2015**; June **2019**; supported by Kanazawa University
- Moscow State Un., the Moscow Winter Academy 2018 on Age-structured Modeling and Management of Biological and Economic Resources, Moscow, **Russia**, Feb. **2018,** sup. by IIASA, Vienna, Austria
- Université catholique de Louvain, **Belgium**, July **2016**, May **2012**, July **2009**, December **2008,** November **2006,** July **2004**; supported by Université Catholique de Louvain, Belgium
- University of Oxford, **UK**, July **2016,** supp. by CORE and PVAMU
- European University at St. Petersburg, **Russia**, October **2015**; supported by the European University at St. Petersburg and Center for Operations Research & Econometrics, Louvain, Belgium
- Belarussian-Russian Un., Gomel, Belarus, March **2015**, sup. by the Belarussian-Russian University
- Center for Operations Research & Econometrics, Louvain la Neie, **Belgium**, June **2014**, May **2011**, July **2010**, November **2006;** sup. by the Center for Operations Research & Econometrics, Belgium
- University of Girona, Girona, **Spain**, June **2013**, June **2012**; supported by the Catalan Agència de Gestió d'Ajuts Universitaris i de Recerca- AGAUR, Grup d' Investigació en Economia Pública
- University of Cambridge, **UK**, December **2010,** supported by the Isaac Newton Institute for Mathematical Sciences, UK
- University of Girona, Girona, **Spain**, May **2008,** July **2006**; sup. by University of Girona, Spain
- University of Strasbourg, Strasbourg, **France**, Nov **2008**; supported by Univ. of Strasbourg, France
- University of Milan, Milan, **Italy**, September **2008**; supported by Department of Economics, Business and Statistics, University of Milan, Italy
- Eurasian National University, Astana, **Kazakhstan**, May **2008**; supported by NATO grant 982209
- University of South Australia, Adelaida, **Australia**, August **2006**; supported by Visiting Research Grant of University of South Australia
- Kiev State University, Kiev, **Ukraine**, August **2007,** June **2006;** supported by NATO grant 982209
- European University Institute, Florence, **Italy**, Sep. **2005**; supported by the European University Institute
- Université catholique de Louvain, **Belgium**, July **2004**; sup. by Université catholique de Louvain

MENTORING ACTIVITIES (selected)

- NSF-REU-summer school *Mathematical Modeling in the Sciences* at PVAMU, May-July 2021
- PhD Dissertation committee: Mr. Mahesh Patel, Title of a PhD dissertation: “New Approaches to Channel Coding and Link Quality Estimation”, Electrical Engineering Dept., PVAMU, 2015
- PhD Dissertation committee: Mr. Kirti Patel, Title of a PhD dissertation: "Graph Theoretic Routing Methodology For Mobile AD HOC Networks (MANET)", Electrical Engineering Dept., Prairie View A&M University, 2014
- PhD Dissertation committee: Mr. Golam Rosul Khan, Title of a PhD dissertation: "Resource Efficient Distributed Ad-hoc Network Management System (DANMS)",)", Electrical Engineering Dept., Prairie View A&M University, 2014
- PhD Dissertation committee: Mr. Sharmistha Khan, Title of a PhD dissertation: “Highly Reliable Multi Service Provisioning Using Sequential Prediction Of Zone and PL&T Tracking of Nodes in Mobile Networks”, Electrical Engineering Dept., Prairie View A&M University, 2014
- PhD Dissertation committee: Mr. Prabesh Dongol, Title of a PhD dissertation: "End To End Quality Of Service Ofassurance for Multi- Ervice Provisioning for Mobile Ad Hoc Networks (Manet)",)", Electrical Engineering Dept., Prairie View A&M University, 2014
- PhD Dissertation committee: Mr. Justin O. James, Dissertation: *Cross-layer Link Adaptation Strategies for Multimedia in Mobile Ad Hoc Networks,* 2012
- M.S. Math Graduate Advisor: Santos Pedraza *Mathematical Model of Streptococcus Pneumoni,* Department of Mathematics, 2013
- M.S. Math Graduate Advisor: Deonica Paxton *Size-structured Model of Forest Management and Carbon Sequestration,* Department of Mathematics, 2012
- Undergraduate Mentor under REU site: Caroline Satky, Texas State University, 2021
- Undergraduate Mentor: Amie Rollie, Mikaela Dulan A *Size-structured Model of Forest Dynamics*, the 3rd annual STEAM Research Symposium, Prairie View A&M University, Feb. 17, 2012-1st place
- Undergraduate Mentor: A. Rollie, R. Baxter, *Optimal control in age-dependent models in epidemiology and demography*, Abstracts of Papers Presented to the American Mathematical Society (Boston, January 2012), 33(2012), No.1, p.343 (ISSN 0192-5857)
- Undergraduate Mentor: Tracy *Shields Integral Age Dependent Model of Harvesting in Biological Population* at 2nd Research Symposium “Expanding the Scope of Research”, Prairie View A&M University, March 4,2011 , won 1st place
- Graduate Mentor: Paxton, *Sustainable Forest Management, Logging Size, and Carbon Sequestration under Climate Changes*, Abstracts of Papers Presented to the American Mathematical Society (New Orleans, January 2011), 32(2011), No.1, p.282 (ISSN 0192-5857)



CONFERENCES, WORKSHOPS, SEMINARS (selected)

- the 2021 Mathematical Congress of the Americas, Buenos Aires, Argentina, July 19-24, 2021
- 2021 International Conference on Diversified Education and Social Development DESD 2021, Guiyang, China, July 23rd-25th, 2021
- The 13th ISAAC Congress, Ghent, Belgium, August 2-August 6, 2021
- The Moscow Winter Academy 2018 on Age-structured Modeling and Management of Biological and Economic Resources, Lomonosov Moscow State University, Moscow, Russia, February 3-6, 2018
- The 2018 Joint Mathematics Meetings, San Diego, California, January 10-13, 2018
- The INFORMS 2017 Annual Conference, Houston, TX, USA, October 22-25, 2017
- DARPA Strategic Technology Office (STO) Resource Management Technical Interchange, Arlington, VA, October 4-5, 2017
- The Fourth International Workshop on Natural Resources, Environment and Economic Growth, the European University at St. Petersburg, Russia, October 1-2, 2015
- The MPE2013+ Workshop on Natural Resources, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) Rutgers, Howard University, Washington, DC, June 3 - 6, 2015
- The 38th Annual Texas Partial Differential Equations Conference, University of Houston, Houston, TX, March 28-29, 2015
- Joint Mathematics Meeting, San Antonio, TX, January 10-13, 2015
- 5th Workshop on Game Theory in Energy, Resources and Environment, GERAD - HEC Montréal, Canada, May 26-27, 2014
- QEM/NSF HBCU-UP workshop "Creating and Maintaining Rigorous Middle/ High School STEM Teacher Preparation Programs at HBCU-UP Grantee Institutions", Baltimore, August 14-15, 2014
- the 8th International Conference on Modelling in Industrial Maintenance and Reliability to be held at St Catherine's College, Oxford, UK, July 10 – 12, 2014
- Workshop “Modeling problems related to our environment”, American Institute of Mathematics (AIM), Palo Alto, California January 14-18, 2013
- The Fourth Workshop on Game Theory in Energy, Resources and Environment, Montreal, Canada, November 29-30, 2012
- Colloquium talk, University of Arlington, Texas, September 14, 2012
- The 12th Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Vienna, Austria, May 30-June 2, 2012
- NIMBioS Investigative Workshop on Disturbance Regimes and Climate-Carbon Feedback, Knoxiville, TN, February 13-15, 2012
- The 118-th Meeting of American Mathematical Society, Boston, MA USA, January 4-7, 2012
- Association of American Colleges & Universities (AAC&U) conference on general education, New Orleans, February, 23-25, 2012
- The 3rd International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems, San Antonio, Texas, October 7-9, 2011
- Conference on Sustainable Growth, Technological Progress and the Environment, Louvain-la-Neuve, Belgium, May 19-21, 2011
- The 34th Annual Texas Partial Differential Equations Conference, Edinburgh, TX, March 26-27,11
- The 117-th Meeting of American Mathematical Society, New Orleans, LA USA, January 6-9, 2011
- Workshop CLPW04 on Uncertainty in Climate Prediction: Models, Methods and Decision Support, Isaac Newton Institute for Mathematical Sciences- University of Cambridge, UK, Dec.6-10, 2010
- Oregon Maseeh Colloquium Series, Portland State University, May 2010
- The Institute for Operations Research and the Management Sciences (INFORMS), Annual Meeting, Austin, November 7-10, 2010
- New Directions Short Course: New Mathematical Models in Economics and Finance IMA, Institute for Mathematics and its Applications, University of Minnesota, July 06-18, 2010
- The 23rd European Conference on Operational Research, Bonn, Germany, July 2009

TALKS (selected)

- *Engaging Activities for Enhancing Mathematical Learning,* Plenary talk at 2021 Int. Conference on Diversified Education and Social Development DESD2021, Guiyang, China, July 23-25, 2021
- *Integral epidemiologic model with finite memory and realistic distributions* at the 13th ISAAC Congress, Ghent, Belgium, August 2-6, 2021
- *Versatility, Connections, and Applications of Mathematical Models* Key speaker at Institute of Science and Engineering, Kanazawa University, June 2019
- *Generalized Functions in Optimal Control of Age-Structured Population Models,* at the 12th International ISAAC Congress, Aveiro, Portugal, July 20-August 2, 2019
- *Optimization of Capital Asset Renovation under Improving Technology and Uncertain Costs, The 46th Annual Meeting of the Federation of Business Disciplines, March 13 -16, 2019, Houston, Texas*
- *Facilitating the understanding of mathematics curriculum in students through problem development,* the 2018 Joint Mathematics Meetings, San Diego, California, January 10-13, 2018
- *Modeling of Age-structured Systems with Endogenous delays,* Key speaker at the Moscow Winter Academy 2018 on Age-structured Modeling and Management of Biological and Economic Resources, Lomonosov Moscow State University, Moscow, Russia, February 3-6, 2018
- *Optimization of Sustainable Capital Lifetime under Environmental Uncertainly*, The 2017 INFORMS Annual Meeting, Houston TX, October 22-24, 2017
- *To Mitigate or to Adapt to Climate Change: Environmental Policies vs. Ecological Consequences* 2016 World Conference on Natural Resource Modeling, Flagstaff, AZ, June 14-17, 2016
- *Optimal Control in Environmental Economics,* Texas Optimization Day, TAMU, TX, April 4, 2016,
- *Sustainable Forest Management under Climate Change and Natural Disturbances,* 4th Workshop on Natural Resources, Environment and Economic Growth, St. Petersburg, Russia, Oct.1-2, 2015
- *Technological Innovations, Production, and the Environmental Protection: Modeling and Optimization*, Texas Southern University, September 17, 2015
- *Modeling of Sustainable Forest Management under Climate Changes and Natural Disturbances*, MPE 2013+ Workshop on Natural Resources, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) Rutgers, Howard University, Washington, DC, June 3 - 6, 2015
- *Optimal control of differential and integral equations with applications,* Institute of Science and Engineering, Kanazawa University, Kanazawa, Japan, May 22, 2015
- *Optimal Control of Differential Equations Arising in Environmental Protection* at the 38th Annual Texas PDE Conference, University of Houston, Houston, TX, March 28-29, 2015
- *Emerging Technologies and Industry Modernization,* Belarussian-Russian University, Gomel, Belarus, March 13, 2015
- *Production, Innovation, Modernization,* Belarussian-Russian University, Belarus, March 12, 2015
- *Economic- Environmental Models for the Protection of Nature and Society*, Belarussian-Russian University, Gomel, Belarus, March 11, 2015
- *Construction and analysis of optimization problems with production, pollution, mitigation and adaptation components*, NSF-UBM, TAMU-PVAMU, February 23,2015
- *Successes and Challenges in Teaching Mathematics* at the special Session Successes and Challenges in Teaching Mathematics SS 46A of Joint Mathematics Meetings, San Antonio, TX, Jan 10-13, 2015

AWARDS and GRANTS (selected)

- AP09261118 Development of intellectual information technology to support decision-making to ensure the economic stability of Kazakhstan under pandemics, the Ministry of Education and Science of the Republic of Kazakhstan, 2021-2023
- RDI project "Policy coordination, social interaction and natural resource management (PROTECT)" (University of Girona, Spain, 2020-2022)
- IRN: AP05131784 A The development of an information system for modeling economic and technological renovation in various industries and enterprises of Kazakhstan-Ministry of Education and Science of Kazakhstan, September 2018 – August 2021
- P05131784, NSF DMS 1009197 NSF 19-582 REU Site: Mathematical Modeling in the Sciences 09/01/2020 - 08/31/2023
- NSF DMS 1950677: Integral Equations with Delay: Optimal Control and Applications, 2010-2012
- NSF-DBI: UBM-Institutional: Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, NSF-DBI-1029401, September 1, 2010-August 31, 2015
- NATO Collaborative Linkage Grant 982209 “Optimal Replacement of Information Technologies and Sustainable Development (in Kazakhstan, Ukraine, and USA)”, May 2006-May 2008
- Science, Technology, Engineering, and Mathematics Enhancement Program (SMET)-NSF
- Gates-Marshall Redesign Project: XLR8: Partnership between PVAMU with Royal High School Faculty, Converting Student Potential into Lifetime Achievement 2004-2009
- NSF-MAA PMET mini-grant, NSF Grant DUE-0230847, January 2005-December 2006
- Academy Fellowship, Texas A&M Research Foundation; The Texas A&M university system’s regents’ initiative for excellence in education fellowship, August-December 2004
- NSF/AWM Travel Grant to present a talk at the 21st IFIP TC 7 conference on system modeling and optimization (Sophia Antipolis, France), July 2003
- Research Enhancement Program at Prairie View A&M University “Preparation of Manuscript for Applied Mathematical Modeling of Engineering Problems”, November 2002 - July 2003
- the Marques Who’s Who in Science and Engineering, 10th Ed., 9th Ed.; Who’s Who in American Education, 8th Ed.; Who’s Who in America, 63rd Ed., 62rd Ed.; Who’s Who in the World in, 26th Ed., 25th Anniversary Ed.; Who’s Who of American Women, 27th Ed.; and many others
- Department / College Awards for Excellence in Teaching for the 2007-2008, 2011-12, 2013-14, 2014-15; Awards for Excellence in Research for the 2010-11, 2007-2008

WORK HISTORY:

Current:	Aug. 2002-now Professor since 2009	Prairie View A&M University, Department of Mathematics (Prairie View, Texas, USA)
Previous:	Aug.2000 – July 02	University of Texas at Dallas, Department of Mathematical Sciences (Dallas, Texas, USA)
	Sep. 1996 –Jun.2000	University of Alberta, Department of Mathematical Sciences (Edmonton, CANADA) Concordia University College of Alberta (Edmonton)
	1991-1996	Kiev State University, Cybernetics Dep. (UKRAINE)

Dr. NATALI HRITONENKO

LIST OF PUBLICATIONS

BOOKS:

1. **N.Hritonenko** and Yu.Yatsenko, *USA Through the Lens of Mathematics,* Chapman and Hall/CRC Press, ISBN 9781032133492, to appear in **2021**.

2. **N.Hritonenko** and Yu.Yatsenko, *Mathematical Modeling in Economics, Ecology and the Environment*, 2nd Edition, Springer, New York/Berlin, **2013,** 296p.

3. **N.Hritonenko** and Yu.Yatsenko, *Mathematical Modeling in Economics, Ecology and the Environment*, Renmin University of China Press, Beijing: China, **2011**, 300 p. (in Chinese)

4. R. Boucekkine, **N. Hritonenko**, Yu. Yatsenko, *Optimal control of age-structured populations in economy, demography, and the environment*, Routledge (Taylor & Francis, UK), Series "Environmental Economics", **2010**, 295 p

5. **N.Hritonenko,** Yu.Yatsenko, *Mathematical modeling in economics, ecology and the environment*, Series "Mathematical Masterpieces Abroad", Science Press, China, **2006**, vol. 23.

6. **N.Hritonenko,** Yu.Yatsenko, *Applied mathematical modelling of engineering problems*, Kluwer Academic Publishers, Massachusetts, **2003**, 308 p.

7. **N.Hritonenko,** Yu.Yatsenko, *Mathematical modeling in economics, ecology and the environment*, Kluwer Academic Publishers, Dordrecht, **1999**, 210 p.

8. **N.Hritonenko,** Yu.Yatsenko, *Modeling and optimization of the lifetime of technologies*, Kluwer Academic Publishers, Boston/London/Dordrecht, **1996**, 290 p.

EDITOR of PROCEEDINGS and SPESSIAL ISSUES:

9. Proceedings of the **2021** International Conference on Diversified Education and Social Development (DESD 2021), Volume 569, August 2021; Editors: Lin Wang; **N. Hritonenko,** Atlantis Press – Springer Nature, ISSN 2352-5398

10. Proceedings of the **2005** international Conference of scientific computing CSC'05, Las Vegas, Editors: H.R. Arabnia, G.A. Gravvanis, **N. Hritonenko**, W.Sun, June 20-23, 2005, CSREA Press

11. Special issue Optimal control, controllability and stabilizability of *Mathematical Modelling of Natural Phenomena,* 9 (4), 2014

12. Special issue Analytic Modeling in Biology and Medicine, *Journal of Biological Systems*, Vol. 22, No. 2 (2014)

13. Special Issue: Age- and size-structured population dynamics, *Mathematical Population Studies*, 15 (2008)

14. Special issue "Modelling of evolving systems in economics and life sciences", *International Journal of Ecology and Development*, 6 (2007)

15. Special issue “Modeling of evolving systems in ecology and economics”, *International Journal of Ecology and Development*, 5 (2006),

RESEARCH PAPERS:

16. **N. Hritonenko**, N. Kato, Yu. Yatsenko, Existence of measure-valued solutions in optimal control of age-structured populations, *Applicable Analysis* (GAPA), accepted, 2021 https://doi.org/10.1080/00036811.2021.1981876

17. **N. Hritonenko**, O. Yatsenko, Yu. Yatsenko, Model with transmission delays for COVID-19 control: theory and empirical assessment, accepted to *Journal of Public Economic Theory*, 2021

18. **N. Hritonenko,** Yu.Yatsenko, As. Boranbayev, Analysis of Optimal Investment in Continuum of Age-Dependent Vintages accepted for publication accepted to *Pure and Applied Functional Analysis*, 2021, 6:4, 743-759

19. **N. Hritonenko,** V. Hritonenko, Ol. Yatsenko, Engaging Activities for Enhancing Mathematical Learning, *Advances in Social Science, Education and Humanities Research*, Atlantis Press -Springer Nature, ISSN 2352-5398, 2021, 569, 98-102

20. **N. Hritonenko**, O. Yatsenko, Yu. Yatsenko, Sustainable adaptation and mitigation in cities and regions: Review of modeling tools. *Sustainability*, under minor revision, 2021

21. A.S. Boranbayev, S.N. Boranbayev S.N., Y.P. Yatsenko, **N.V. Hritonenko N.V.,** Development of methods to support decision-making to ensure the economic stability under pandemics. Вестник Технических Наук Костанайского социально-технического университета имени академика Зулхарнай Алдамжар, 2021, 1, 53-61, ISSN 2305-3356

22. Yatsenko, Y., **Hritonenko, N.,** Aquaculture: an Emerging Research Area, *Academia Letters*, 2021, https://doi.org/10.20935/AL680

23. **N. Hritonenko**, V. Hritonenko, Yu. Yatsenko, A review of epidemiologic models: from SIR to distributed delays, An. S¸tiint¸. Univ. Al. I. Cuza Ia¸si. Mat. (N.S.) Tomul LXVI, 2020, f. 2, 237-249

24. Yu. Yatsenko, **N. Hritonenko** Analytics of machine replacement decisions: economic life vs real options, *Management Decision*, 2020, https://doi.org/10.1108/MD-12-2019-1704

25. Yu. Yatsenko, **N. Hritonenko,** S. Boranbayev (2020): Non-equal-lifeasset replacement under evolving technology: A multi-cycle approach, *The Engineering Economist*, (2020), 65:4, 339-362; DOI: 10.1080/0013791X.2020.1716126

26. **N. Hritonenko,** V. Hritonenko, Yu. Yatsenko**,** Games with Adaptation and Mitigation, *Games*, 2020, 11(4), 60; DOI:10.3390/g11040060 https://www.mdpi.com/2073-4336/11/4/60/pdf

27. **N. Hritonenko**, Yu. Yatsenko & T. Bréchet On North-South interaction and environmental adaptation, *Journal of Environmental Economics and Policy*, (2020), 9:3, 319-337, DOI: 10.1080/21606544.2019.1684384

28. **N.Hritonenko**, Yu.Yatsenko, Nonlinear integral models with delays: recent developments and applications, *Journal of King Saud University - Science*, (2020), 32:1, 726-731

29. Yu. Yatsenko, **N. Hritonenko**, Optimal asset replacement: Profit maximization under varying technology, *International Journal of Production Economics* Vol. 228, (2020), 107670, https://doi.org/10.1016/j.ijpe.2020.107670

30. **N. Hritonenko**, M. Leitte, Yu. Yatsenko, Optimal harvesting in age- and size- structured population models, accepted to *Birkhäuser “Research Perspectives”* series, 2020

31. **N. Hritonenko**, N. Kato, Yu. Yatsenko Generalized Functions in Optimal Control of Age-Structured Population Models, accepted to *Birkhäuser "Research Perspectives"* series, 2020

32. R.Goetz, Yu.Yatsenko, **N.Hritonenko**, A. Xabadia, and A. Abdulai, The dynamics of productive assets, contract duration and holdup, *Mathematical Social Sciences*, 97 (2019), 24-37.

33. **N. Hritonenko**, Yu. Yatsenko, and A. Boranbayev, Generalized functions in the qualitative study of heterogeneous populations, *Mathematical Population Studies*, 26:3 (2019), 146-162

34. **N.Hritonenko,** Ol. Yatsenko, Projects to facilitate mathematical learning, in *Teaching mathematics in higher education and working with gifted students in contemporary context*, Mogilev, Belarus, February, (2019), 8-11.

35. **N. Hritonenko** (2018), "1-067-S-ModelingWithSigmoidCurves," https://www.simiode.org/resources/5008.

36. R. Boucekkine, **N.Hritonenko** and Yu.Yatsenko, Chapter 13. Technological progress, employment and the lifetime of capital, in: Sunspot and Non-linear Dynamics: Essays in Honor of Jean-Michel Grandmont, Studies in Economic Theory 31, K. Nishimura, A. Venditti and N. Yannelis, eds., Springer International Publishing AG, Cham: Switzerland, 2017, pp. 305-337

37. Yu.Yatsenko and **N.Hritonenko**, Machine replacement under evolving deterministic and stochastic costs, *International Journal of Production Economics* 193 (2017), 491-501

38. **N.Hritonenko**, N. Kato, Yu.Yatsenko, Optimal control of investments in old and new capital under improving technology, *Journal of Optimization Theory and Applications***,** 172-1(2017)

39. Yu.Yatsenko, **N.Hritonenko**. Two-cycle optimization in replacement models with non-exponential technological improvement*, IMA Journal of Management Mathematics* 28(3) (2017), 359-372.

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