Curriculum Vitae

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Dmytro Savchuk

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Research Interests

PUBLICATIONS

Preprints and in Preparation

1. **Explicit Generators for the Stabilizers of Rational Points in Thompson's Group F (with K. Baker), submitted, 2023, 19 pages,**
   https://arxiv.org/abs/2401.00404

2.

14. Orbit automata as a new tool to attack the order problem in automaton groups (with I. Klimann

28. **Groups generated by 3-state automata over a 2-letter alphabet, I, (with I. Bondarenko, R. Grigorchuk, R. Kravchenko, Y. Muntyan, V. Nekrashevych and Z. Sunic), São Paulo Journal of Math. Sciences, 1 (2007), no.1, 1–40,** http://arxiv.org/abs/math.GR/0612178

29. **On Sushchansky p-groups (with I. Bondarenko), Algebra Discrete Math., 2007, no.2, 22–42,** http://arxiv.org/abs/math.GR/0612200

30. **On word problem in contracting automorphism groups of rooted trees, Bulletin of the University of Kiev, Series: Physics & Mathematics, 2003, no.1, 51–56**

Reports

31. **About classification of groups generated by automata with three states over an alphabet with two letters, and about some questions concerning these groups (with I. Bondarenko, R. Grigorchuk, R. Kravchenko, Y. Muntyan, V. Nekrashevych and Z. Sunic), Bulletin of Chernivtsi National University, Mathematics, Issue 336–337 (2007), 29–39.**

Undergraduate Exposition

32. **(with N. Rudomino-Dusyatska) Is gambling worth it? (Ukrainian), In the world of Mathematics, V.5 (1999), no.3, 77–82**

33. **(with N. Rudomino-Dusyatska) About D. Grave and some of his t?M(b)-1.6878298(o)-7613]TJ /R27**

- **(PI) Conference Support Grant "International Conference: Developments in Language Theory 2022", NSA ($15,400)** 2021
- **(PI) Conference Support Grant, ResearchOne, USF ($1,000)** 2020
- **(Co-PI) Conference Support Grant "International Conference: Developments in Language Theory 2020", NSF ($10,000) – Extended to DLT-2022 due to COVID pandemic** 2019
- **(Co-PI) Conference Support Grant "International Conference: Developments in Language Theory 2020", NSA ($15,400) – Cancelled due to COVID pandemic** 2019
- **(PI) Conference Support Grant, ResearchOne, USF ($1,000)** 2018
- **(PI) Conference Support Grant, USF Internal Award ($5,000)** 2017
- **(PI) AIM SQuaREs Program Award (https://aimath.org/programs/squares/)** 2017-2022
- **Grant from Helmsley foundation to enhance Calculus Curriculum at USF ($2,500)** 2016
- **(PI) Collaboration Grant for Mathematicians, Simons Foundation ($35,000)** 2014-2022
- **(PI) Proposal Enhancement Grant, USF Internal Award ($16,504)** 2014
- **(PI) New Researcher Grant, USF Internal Award ($8,439)** 2013
- **Ostrogradsky Prize for Researchers among Ukrainian University Students at the Institute of Mathematics of NAS in Ukraine, Kyiv, Ukraine** 2001
- **Soros Foundation Fellowship for Undergraduate Students, Kyiv, Ukraine** 1998

SELECTED TALKS

Conference Talks

October 2023	(invited) SIAM-NNP Annual Meeting NJIT, Newark, NJ
September 2023	(invited) Mathematics and Information Technology (online) Chernivtsi, Ukraine
September 2023	(5-minute talk) GoTh Workshop: Groups of Thompson and their relatives Magdeburg, Germany
July 2023	(plenary) 12th International Algebraic Conference in Ukraine (online), Ukraine
May 2023	(invited) Joint Spectra and related Topics in Complex Dynamics and Representation Theory Video of the talk Ban International Research Station, Ban, Alberta, Canada
August 2022	(invited) 2022 Combinatorics, Computing, Group Theory and Applications in South Florida

FAU, Boca Raton, Florida
July 2022 (substitution as an organizer)

May 2013

Talks for Students and K-12

MAS 5311	**Algebra I (graduate level)** **Fall 2015**
MAS 5312	**Algebra II (graduate level)** **Spring 2016**
MAT 4471	**Cryprography and Coding Theory** **Fall 2013, Fall 2014 (new course development)**
MAS 4302	**Elementary Abstract Algebra II** **Spring 2017**
MTG 4302	**Introduction to Topology** **Spring 2019, Spring 2022**
MAS 3105	**Linear Algebra** **Fall 2012, Fall 2013, Spring 2014, Spring 2018, Fall 2018** **Fall 2019**
MAC 2312	**Calculus II** **Spring 2013, Fall 2018, Fall 2019**
MAC 2282	**Engineering Calculus II** **Spring 2015**
MAC 2311	**Calculus I (including course coordination)** **Spring 2015, Fall 2016, Spring 2017, Summer 2018, Summer 2019** **Summer 2021**
MAC 2281	**Engineering Calculus I** **Fall 2014, Fall 2015, Spring 2015, Spring 2016**

Binghamton University

Math 130	**Mathematics in Action** **Spring 2011 (250 students), Fall 2011 (280 students)**
Math 304	**Linear Algebra** **Fall 2009 (44 students), Fall 2010 (50 students)**
Math 330	**Number Systems** **Spring 2010 (25 students)**
Math 371	**Ordinary Di□erential Equations** **Fall 2009 (40 students)**
Math 372	**Dynamical Systems** **Fall 2010 (36 students)**
Math 375	**Complex Variables**

Spring 2012

Math 461 Topology I (undergraduate level)
Fall 2011 (21 students)

Texas A&M University

Math 142 Business Mathematics II
Instructor (Summer 2006)

Math 152 Calculus II (with Maple)
Teacher Assistant (Fall 2007 (honors), Spring 2007, Fall 2005)

Math 253 Calculus III (with Maple)
Teacher Assistant (Fall 2006 (honors), Spring 2005)

Grader for the following courses:

Math 166 Topics in Contemporary Mathematics II
Math 308 Di□erential Equations
Math 367 Basic Concepts of Geometry
Math 414 Fourier Series and Wavelets
Math 416 Modern Algebra II
Math 433 Applied Algebra
Math 645

- **Organizer and PC-chair of DLT-2020 (Developments in Language Theory) conference, University of South Florida, Tampa, FL, May 2020 (cancelled due to COVID pandemic)**
- **Organizer of a Special Session "Groups and topological dynamics" at the Joint Meeting of AMS-MAA, Denver, January 2020**
- **Organizer of "Zassenhaus groups and friends" international conference, University of South Florida, Tampa, FL, April 6-8, 2018**
- **Organizer of a Special Session "Combinatorial/Geometric/Probabilistic Methods in Group Theory" at the AMS Fall Central Sectional Meeting (#1131), Denton, TX, September 2017**
- **Organizer of a conference "Geometric and Probabilistic Methods in Group Theory and Dynamical Systems", Texas A&M University, College Station, TX, November 9-12, 2015**
- **Organizer of a Special Session "New trends in automata groups and semigroups" at the Joint International Meeting of AMS-EMS-PMS (#1111), Porto, June 2015**
- **Organizer of "Groups and Dynamics Workshop", Texas A&M University, May 6, 2014**
- **Organizer of "Groups Acting on Rooted Trees and Around" workshop, Insitut Henri Poincaré, Paris, France, February 24-28, 2014**
- **Organizer of Geometry and Topology seminar at Binghamton University (2011-2012)**
- **Organizer of Toeholds in Topology seminar for graduate students at Binghamton University (2010-2012)**

UNIVERSITY SERVICE

- **Chair of the Department of Mathematics and Statistics (August 2022 – present)**
- **Associate Chair (January 2020 – August 2022)**
  - **Overseeing the graduate programs**
  - **Updating the graduate catalog (submitted 15 course proposals)**
  - **Supervising teaching assistants**
  - **Overseeing the registration issues for both undergraduate and graduate students**
  - **Scheduling the classes for the Tampa campus at the Math and Stats Department**
- **Chair of the graduate committee (January 2020 – August 2022)**
- **Member of the School and College Graduate Curriculum Committees (September 2020 – May 2022)**
- **Graduate Admissions Director at the Mathematics and Statistics Department at USF (September 2018 – January 2020)**
- **Developed the curriculum for an undergraduate course on "Crypt**

- **Advisor of Undergraduate Math Club at Binghamton University (2009-2012)**
- **Chapter Advisor for Pi Mu Epsilon Honor Society (2010-2012)**

STUDENTS

- **Arsalan Malik (Ph.D., Current), USF**
- **Kainna Cabral (Undergraduate from Northeastern University), REU at USF 2023**
- **Elsayed Ahmed (Ph.D., December 2018), USF**
- **Krystofer Baker (B.S. Honors Thesis, May 2017), USF**
- **Allen Pennington (M.S., May 2017), USF**
- **Suzana Milea (M.A., May 2014), USF**
- **Louis Caponi (M.A., May 2014), USF**
- **Tracy Stefanovic (B.S. Honors Thesis, 2014), USF**

SKILLS

Languages	**Ukrainian and Russian (native), English (fluent)**
Computer	**I have experience working and programming in di□erent Computer Algebra Systems, including GAP, Maple, R** **Proficient in publishing scientific documents with LaTeX**