CURRICULUM VITAE

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The University of Texas Rio Grande Valley
One West University Boulevard
Brownsville, TX, 78520, USA.

Education:

2006 – 2009: Ph.D. in Mathematics, Steklov Mathematical Institute of the Russian Academy of Sciences, Ph.D. advisor: Nikolay Dolbilin.

2001 – 2006: M.S. Mathematics (cum laude), Moscow State University, Faculty of Mechanics and Mathematics, Department of Number Theory.

Professional Appointments:

February, 2021 – April, 2021: Visiting professor, Institute of Science and Technology, Klosterneuburg, Austria.

September, 2020 – present: Associate professor, School of Mathematical & Statistical Sciences, The University of Texas Rio Grande Valley.

September, 2015 – August, 2020: Assistant professor, School of Mathematical & Statistical Sciences, The University of Texas Rio Grande Valley.

September, 2014 – August, 2015: Assistant professor, Department of Mathematics, The University of Texas at Brownsville.

October, 2009 – August, 2014: Junior research fellow, Assistant professor, Department of Geometry and Topology, Moscow State University, Russia.

December, 2011 – December, 2013: Junior research fellow, Senior research fellow, Delone Laboratory of Discrete and Computational Geometry, Yaroslavl State University, Russia.

September, 2009 – June, 2013: Adjunct assistant professor, Department of Higher Mathematics of Moscow Institute of Physics and Technology, Russia.

Research Interests:

Combinatorics, Discrete Geometry, Computational Geometry, Discrete Dynamical Systems.

Awards:

2019: Alexander von Humboldt Foundation Fellowship for experienced researchers.
2013: Winner of prize and stipend of Dynasty Foundation for young mathematicians.
2013: Winner of joint DAAD (German Academic Exchange Service) and Moscow State University Scholarship "Vladimir Vernadskii" for joint research in Germany.

Visiting Researcher:

February 23, 2006 – March 9, 2006: Institute of Statistical Mathematics, Tokyo, Japan.

March 18, 2009 – April 1, 2009: Institute of Statistical Mathematics, Tokyo, Japan.

November 16, 2009 – December 12, 2009: Collaborative Research Center 701 of Bielefeld University, Bielefeld, Germany.

September 26, 2010 – October 31, 2010: Centre Interfacultaire Bernoulli, Ecole Polytechnique Federal de Lausanne, Switzerland.

September 29, 2011 – October 26, 2011: Queen's University, Kingston, ON, Canada.

September 25, 2012 – October 18, 2012: Queen's University, Kingston, ON, Canada.

October 30, 2012 – December 1, 2012: Collaborative Research Center 701 of Bielefeld University, Bielefeld, Germany.

October 15, 2013 – December 14, 2013: Research Center for Mathematical Modelling of Bielefeld University, Bielefeld, Germany.

January 6, 2014 – February 1, 2014: Collaborative Research Center 701 of Bielefeld University, Bielefeld, Germany.

May 5, 2014 – May 14, 2014: Rostock University, Rostock, Germany.

June 19, 2016 – July 2, 2016: Collaborative Research Center 701 of Bielefeld University, Bielefeld, Germany.

February 1, 2021 – April 30, 2021: Institute of Science and Technology, Klosterneuburg, Austria.

May 16, 2021 – August 19, 2021: Research Center for Mathematical Modelling of Bielefeld University, Bielefeld, Germany as part of the Alexander von Humboldt Fellowship.

May 23, 2022 – August 25, 2022: Research Center for Mathematical Modelling of Bielefeld University, Bielefeld, Germany as part of the Alexander von Humboldt Fellowship.

May 22, 2022 – August 24, 2022: Research Center for Mathematical Modelling of Bielefeld University, Bielefeld, Germany as part of the Alexander von Humboldt Fellowship.

Publications (in reverse chronological order)

Preprints:

1. H. Edelsbrunner, A. Garber, M. Saghafian, On spheres with k points inside, preprint, `https://arxiv.org/abs/arXiv:2310.18238`, accepted to *2025 Symposium on Computational Geometry*.

2. A. Garber, Ž. Virk, N. Zava, On the metric spaces of lattices and periodic point sets, preprint, `https://arxiv.org/abs/2310.07594`, 2023.

3. H. Edelsbrunner, A. Garber, M. Ghafari, T. Heiss, M. Saghafian, Flips in Two-dimensional Hypertriangulations, preprint, `https://arxiv.org/abs/2212.11380`, 2022.

Refereed publications and proceedings:

4. A. Garber, Voronoi conjecture for five-dimensional parallelohedra, *Inventiones Mathematicae*, (2025), `https://doi.org/10.1007/s00222-025-01325-0`. Initial versions of this paper were written together with Alexander Magazinov. Unfortunately, he decided to step down as an author of the paper due to personal circumstances.

5. H. Edelsbrunner, A. Garber, M. Saghafian, Order-2 Delaunay Triangulations Optimize Angles, *Advances in Mathematics*, **461** (2025), 110055, `https://doi.org/10.1016/j.aim.2024.110055`.

6. D. Frettlöh, A. Garber, N. Mañibo, Substitution tilings with transcendental inflation factor, *Discrete Analysis*, 2024:11, `https://doi.org/10.19086/da.125449`, also at `https://arxiv.org/abs/2208.01327`.

7. A. Garber, On Helly number for crystals and cut-and-project sets, *Studia Scientiarum Mathematicarum Hungarica*, **61**:3 (2024), 203–214, `https://doi.org/10.1556/012.2024.04314`.

8. N. Dolbilin, A. Garber, E. Schulte, M. Senechal, Bounds for the Regularity Radius of Delone Sets, to appear in *Discrete & Computational Geometry*, (2024), `https://doi.org/10.1007/s00454-024-00666-6`.

9. E. Bajo, R. Davis, J.A. De Loera, A. Garber, S. Garzón Mora, K. Jochemko, J. Yu, Weighted Ehrhart Theory: Extending Stanley's nonnegativity theorem, *Advances in Mathematics*, **444** (2024), 109627, `https://doi.org/10.1016/j.aim.2024.109627`.

10. H. Edelsbrunner, A. Garber, M. Ghafari, T. Heiss, M. Saghafian, M. Wintraecken, Brillouin Zones of Integer Lattices and Their Perturbations, *SIAM Journal on Discrete Math*, **38**:2 (2024), 1784–1807, `https://doi.org/10.1137/22M1489071`.

11. H. Edelsbrunner, A. Garber, M. Ghafari, T. Heiss, M. Saghafian, On Angles in Higher Order Brillouin Tessellations and Related Tilings in the Plane, *Discrete & Computational Geometry*, **72** (2024), 29–48, `https://doi.org/10.1007/s00454-023-00566-1`.

12. D. Frettlöh, A. Garber, N. Mañibo, Catalan numbers as discrepancies for a family of substitutions on infinite alphabets, *Indagationes Mathematicae*, **35**:5 (2024), 890–913, `https://doi.org/10.1016/j.indag.2023.06.010`.

13. A. Garber, A. Magazinov, On the Voronoi conjecture for four- and five-dimensional parallohedra, *Russian Mathematical Surveys*, **77**:1 (2022), 174–176, `https://doi.org/10.1070/RM10020`.

14. D. Frettlöh, A. Garber, L. Sadun, Number of bounded distance equivalence classes in hulls of repetitive Delone sets, *Discrete & Continuous Dynamical Systems*, **42**:3 (2022), 1403–1414, `http://dx.doi.org/10.3934/dcds.2021157`.

15. A. Garber, On combinatorics of Voronoi polytopes for perturbations of the dual root lattices, *Experimental Mathematics*, **33**:1 (2024), 86–99, `https://doi.org/10.1080/10586458.2021.1994488`.

16. N. Dolbilin, A. Garber, U. Leopold, E. Schulte, M. Senechal, On the regularity radius of Delone sets in $\mathbb{R}^3$, *Discrete & Computational Geometry*, **66** (2021), 996–1024, `https://doi.org/10.1007/s00454-021-00292-6`.

17. A. Garber, I. Pak, Concrete polytopes may not tile the space, *Mathematika* **66**:4 (2020), 920–926, `https://doi.org/10.1112/mtk.12052`.

18. M. Dutour Sikirić, A. Garber, Periodic triangulations of $\mathbb{Z}^n$, *Electronic Journal of Combinatorics* **27**:2 (2020), article P2.36, `https://doi.org/10.37236/8298`.

19. A. Garber, On triangular paperfolding patterns, *European Journal of Combinatorics* **89** (2020), `https://doi.org/10.1016/j.ejc.2020.103167`.

20. A. Garber, E. Roldán-Pensado, On a Helly-type question for central symmetry, *Periodica Mathematica Hungarica* **79**:1 (2019), 78–85, `https://doi.org/10.1007/s10998-018-0263-y`.

21. D. Frettlöh, A. Garber, Weighted 1×1 cut-and-project sets in bounded distance to a lattice, *Discrete & Computational Geometry* **62**:3 (2019), 649–661, `https://doi.org/10.1007/s00454-018-0005-1`.

22. I. A. Baburin, M. Bouniaev, N. Dolbilin, N. Yu. Erokhovets, A. Garber, S. V. Krivovichev, E. Schulte, On the Origin of Crystallinity: a Lower Bound for the Regularity Radius of Delone Sets, *Acta Crystallographica*, **A74**:6 (2018), 616–629, `https://doi.org/10.1107/S2053273318012135`

23. D. Frettlöh, A. Garber, Pisot substitution sequences, one dimensional cut-and-project sets and bounded remainder sets with fractal boundary, *Indagationes Mathematicae*, **29**:4 (2018), 1114-1130, `https://doi.org/10.1016/j.indag.2018.05.012`.

24. A. Garber, On π-surfaces of four-dimensional parallelohedra, *Annals of Combinatorics* **21**:4 (2017), 551–572, `http://link.springer.com/article/10.1007/s00026-017-0366-9`

25. M. Dutour Sikirić, A. Garber, A. Schürmann, C. Waldmann, The complete classification of five-dimensional Dirichlet-Voronoi polyhedra of translational lattices, *Acta Crystallographica* A**72** (2016), 673–683, `http://journals.iucr.org/a/issues/2016/06/00/eo5064/index.html`

26. D. Frettlöh, A. Garber, Symmetries of Monocoronal Tilings, *Discrete Mathematics & Theoretical Computer Science*, **17**:2, 2015, 203–234, `https://hal.inria.fr/hal-01349057`.

27. A. Balitskiy, A. Garber, R. Karasev, Another ham sandwich in the plane, *Annals of Combinatorics*, **19**:2 (2015), 235–242, `http://dx.doi.org/10.1007/s00026-015-0270-0`.

28. A. Garber, A. Gavrilyuk, A. Magazinov, The Voronoi conjecture for parallelohedra with simply connected δ-surface, *Discrete & Computational Geometry*, **53**:2 (2015), 245–260, `http://dx.doi.org/10.1007/s00454-014-9660-z`.

29. A. Garber, Belt diameter of Π-zonotopes, *Eur. J. of Combinatorics*, **34**:5(2013), 923–933, `https://doi.org/10.1016/j.ejc.2013.01.005`.

30. A.I. Garber, Belt distance between facets of space-filling zonotopes, *Math. Notes*, **92**:3-4(2012), 345–355, `https://doi.org/10.1134/S0001434612090064`.

31. A. Garber, The second Voronoi conjecture on parallelohedra for zonotopes, *Moscow Journal of Combinatorics and Number Theory*, **1**:2 (2011), 113–119, `http://mjcnt.phystech.edu/en/article.php?id=14`.

32. A.I. Garber, On equivalence classes of separated nets (in Russian). *Modeling and Analysis of Information Systems*, **16**:2 (2009), 109–118, `http://mi.mathnet.ru/mais57`.

33. A.I. Garber, Graphs of linear operators. *Proceedings of the Steklov Institute of Mathematics*, **263** (2008), 57–64, `https://doi.org/10.1134/S0081543808040056`.

34. A.I. Garber, Graph of difference operator for *p*-ary sequences. *Functional Analysis and Other Mathematics*, **1**:2 (2006), 159–173, `https://doi.org/10.1007/s11853-007-0011-y`.

Non-refereed publications and proceedings:

35. A.I. Garber, Complicated sequences due to V.I. Arnold (in Russian). *Materials of the 9th International Seminar "Discrete Mathematics and its Application" devoted to 75th Anniversary of the academician O.B. Lupanov*, 2007, 374–376.

36. A.I. Garber, A.P. Poyarkov, On permutahedra (in Russian). *Vestnik MGU*, ser. 1, iss. 2 (2006), pp. 3–8.

37. A.I. Garber, A.A. Glazyrin, Rigidity of some classes of cubillages. *Proceedings of Second COE Workshop on Sphere Packings*, May 30 - June 5, 2005, pp. 86–89.

38. A.I. Garber, A.P. Poyarkov, On permutahedra. *Voronoi's Impact in Modern Science. Book 3: Proceedings of Voronoi Conference on analytic number theory and spatial tesselations*, Kyiv, Institute of Mathematics, 2005, pp. 137–145.

Expository articles:

39. A. Garber, Tilings by parallelohedra. *Kvant* magazine, issue 1 (2019), 32–33, (in Russian), with illustrations by M. Panov.

Presentations at conferences and workshops:

2003: Third Voronoi Conference on Analytic Number Theory and Spatial Tessellations. Institute of Mathematics of Ukrainian Academy of Sciences, Kyiv, Ukraine.

2005: 2nd COE Workshop on Sphere Packings. Kyushu University, Fukuoka, Japan.

2006: ISM Symposium: Packing and random packing. Institute of Statistical Mathematics, Tokyo, Japan.

2006: 9th International Seminar "Discrete Mathematics and its Applications" dedicated to 75th birthday of O.B. Lupanov. Lomonosov Moscow State University, Moscow, Russia.

2007: 10th International Conference on Discrete Mathematics. Dortmund University, Dortmund, Germany.

2008: Differential equations and topology (dedicated to the Centennial Anniversary of L.S. Pontryagin). Steklov Mathematical Institute and Moscow State University, Moscow, Russia.

2009: Russian-Japanese conference "Discrete Geometry and Statistics of Configurations". Steklov Mathematical Institute, Moscow, Russia.

2010: Topology, Geometry, and Dynamics: Rokhlin Memorial. Euler International Mathematical Institute of Russian Academy of Sciences, Saint-Petersburg, Russia.

2010: Third Texas Southmost Geometry and Topology Conference, The University of Texas at Brownsville, Brownsville, TX, USA.

2010: International Conference "Geometry, Topology, Algebra and Number Theory, Applications" dedicated to the 120th anniversary of Boris Delone. Steklov Mathematical Institute of RAS and Lomonosov Moscow State University, Moscow, Russia.

2010: International Conference "Metric geometry of surfaces and polytopes" dedicated to anniversary of N.V. Efimov. Lomonosov Moscow State University, Moscow, Russia.

2012: Fourth Discrete Geometry and Algebraic Combinatorics Conference, The University of Texas at Brownsville, Brownsville, TX, USA.

2012: International topological conference "Alexandroff Readings". Lomonosov Moscow State University, Moscow, Russia.

2012: "Kolloquium über Kombinatorik", TU Berlin, Berlin, Germany.

2013: Fifth Discrete Geometry and Algebraic Combinatorics Conference, The University of Texas at Brownsville, Brownsville, TX, USA.

2013: 10th International Symposium on Voronoi Diagrams in Science and Engineering, Saint-Petersubrg Academic University, Saint-Petersburg, Russia.

2013: International Conference "Geometry, Topology, and Applications" dedicated to upcoming 70th birthday of Nikolay Dolbilin, Yaroslavl, Russia.

2013: "Kolloquium über Kombinatorik", TU Ilmenau, Ilmenau, Germany.

2014: International Conference "Geometry and Topology" dedicated to 60-th birthday of Oleg Musin, Institute for Information Transmission Problems, Russian Academy of Sciences, Moscow, Russia.

2014: Sixth Discrete Geometry and Algebraic Combinatorics Conference, The University of Texas at Brownsville, Brownsville, TX, USA.

2015: International conference and workshop "Intuitive Geometry", László Fejes Tóth Centennial, Alfréd Réniy Institute of Mathematics, Budapest, Hungary.

2015: International Conference "Geometry and Symmetry" dedicated to Karoly Bezdek and Egon Schulte on the occasion of their 60th birthdays, University of Pannonia, Veszprém, Hungary.

2015: AMS Fall Eastern Sectional Meeting, Rutgers University, New Brunswick, NJ, USA.

2016: AMS Spring Southeastern Sectional Meeting, University of Georgia, Athens, GA, USA.

2016: Auburn University "Discrete Geometry Workshop", Auburn, AL, USA.

2016: "Informal Analysis Seminar", Kent State University, Kent, OH, USA.

2016: Summer School "Transversal Aspects of Tilings", CNRS La Ville Perrotine, Oléron, France.

2017: Joint Mathematics Meeting, Atlanta, GA, USA.

2017: Cornell Rigidity Conference, Cornell University, Ithaca, NY, USA.

2018: "Informal Analysis Seminar", Kent State University, Kent, OH, USA.

2018: AMS Spring Eastern Sectional Meeting, Northeastern University, Boston, MA, USA.

2019: AMS Spring Southeastern Sectional Meeting, Auburn University, Auburn, AL, USA.

2019: BIRS Casa Matematica Oaxaca workshop "Soft Packings, Nested Clusters, and Condensed Matter", Oaxaca, Mexico.

2019: BIRS Casa Matematica Oaxaca workshop "Helly and Tverberg type Theorems", Oaxaca, Mexico.

2019: Canadian Mathematical Society winter meeting, Toronto, ON, Canada.

2020: Combinatorics and geometry days at MIPT - III, Moscow Institute of Physics and Technology, Moscow, Russia.

2021: SIAM Texas-Louisiana Sectional Meeting, South Padre Island, TX, USA.

2022: AMS Spring Eastern Sectional Meeting, online.

2022: 36th Summer Topology Conference, University of Vienna, Vienna, Austria.

2022: MACSMIN 2022: Mathematics and Computer Science for Materials Innovation, Liverpool Materials Innovation Factory, UK and online.

2023: Workshop "Combinatorics and Geometry of Convex Polyhedra", Simons Center for Geometry and Physics, Stony Brook University, NY.

2023: 2023 Texas Undergraduate Groups and Dynamics Conference, University of Texas at Austin, Austin, TX.

2023: AMS Fall Southeastern Sectional Meeting, University of South Alabama, Mobile, AL, USA.

2023: December: Mini-conference dedicated to 80th birthday of Nikolay Dolbilin, Steklov Mathematical Institute, Moscow, Russia (online).

2024: Conference "Combinatorics and Geometry in Ioannina", Ioannina, Greece.

2024: Canadian Mathematical Society winter meeting, Vancouver, BC, Canada.

2025: AMS Spring Eastern Sectional Meeting, Hartford, CT, USA (forthcoming).

Invited seminar/colloquium talks:

2006-2014: Talks at various seminars in the Moscow State University (Russia). Mostly on the seminar "Discrete Geometry and Geometry of Numbers", but also on seminars "Convex Polytopes", "Geometry, Topology, and Mathematical Physics", "Algebraic Topology and Applications", "Noncommutative Geometry and Topology", "Knots and Representation Theory".

2009: I.F.Sharygin Geometry Seminar, MCCME, Moscow, Russia.

2009: Seminar of the CRC 701 "Spectral Structures and Topological Methods in Mathematics", Bielefeld University (Germany).

2010: Discrete and Computational Geometry seminar series, EPFL, Lausanne (Switzerland).

2012: Seminar of the CRC 701 "Spectral Structures and Topological Methods in Mathematics", Bielefeld University (Germany).

2012: Joint research seminar in Mathematics, Moscow Institute of Physics and Technology (Russia).

2013: Seminar of the CRC 701 "Spectral Structures and Topological Methods in Mathematics", Bielefeld University (Germany).

2013: Mathematical Colloquium talk at Rostock University (Germany).

2013: Discrete geometry research group seminar, Free University, Berlin (Germany).

2013: Institute for Information Transmission Problems, Russian Academy of Sciences (Russia); .

2014: Seminar of the CRC 701 "Spectral Structures and Topological Methods in Mathematics", Bielefeld University (Germany).

2015: "Geometry, Algebra, Singularities, Combinatorics" seminar, Northeastern University, MA (USA).

2016: Seminar of the CRC 701 "Spectral Structures and Topological Methods in Mathematics", Bielefeld University (Germany).

2020: "Measure Theory Seminar", Kent State University, Kent, OH, USA.

2020: Postnikovsky seminar, Moscow State University, Moscow, Russia.

2020: Number Theory seminar, Moscow State University, Moscow, Russia.

2020: "Big Seminar" at the Laboratory of Combinatorial and Geometric Structures, Moscow Institute of Physics and Technology, Moscow, Russia.

2020: "Knots and Representation Theory" seminar, Moscow State University, Moscow, Russia.

2020: Seminar on Combinatorial Aspects of Commutative Algebra and Algebraic Geometry, Indian Institute of Technology, Bombay, India.

2021: Online Asymptotic Geometric Analysis Seminar (online).

2021: IST Austria, Geometry and Topology seminar.

2021: Aperiodic Order seminar, Bielefeld University (Germany) and Open University (UK).

2021: Discrete Geometry seminar, Free University Berlin, Germany.

2022: Aperiodic Order seminar, Bielefeld University, Bielefeld, Germany.

2022: Discrete Geometry seminar, Free University Berlin, Germany.

2023: Aperiodic Order seminar, Bielefeld University (Germany).

2023: Combinatorics, geometry and topology seminar at Institute of Science and Technology (Austria).

2023: December: MIF++ seminar at Material Innovation Factory, University of Liverpool (UK), online.

2024: Discrete Geometry and Geometry of Numbers seminar, Moscow State University, Moscow, Russia (online).

2025: "Geometry, Algebra, Singularities, Combinatorics" seminar, Northeastern University, MA, USA (forthcoming).

2025: Geometry Seminar, Courant Institute of Mathematical Sciences, New York, NY, USA (forthcoming).

External competitive funding:

- 2024-2029. Simons Foundation collaboration grant for mathematicians, $ 42000.

- 2024-2026. One of organizers of SQuaRE workshops "Weighted Ehrhart Theory" at American Institute of Mathematics, Pasadena, CA.

- 2020-2023. Alexander von Humboldt Foundation Fellowship for experienced researchers, Euro 28530.

- 2018-2022. Participant of SQuaREs program "Delone Sets: Local Rules in Crystalline Structures" at American Institute of Mathematics, San Jose, CA.

- 2019-2024. NSF Conference grant DMS-1904635, PI. Total funding for Discrete Geometry and Algebraic Combinatorics conferences: $ 15000.

- 2016-2018. NSF Conference grant DMS-1623600, co-PI. Total funding for Discrete Geometry and Algebraic Combinatorics conferences: $ 40000.

- 2011-2013. Participation in Russian Government "Megagrant" program in the project 11.G34.31.0053 as research fellow of Delone Laboratory of Discrete and Computational Geometry. Total funding: RUR 150000000 (approximately $ 4 687 500).

- 2011-2013. Russian Federal Program "Kadry". Co-PI of the project 16.740.11.0568 "Functional Analysis and Discrete Geometry". Total funding: RUR 1500000 (approximately $ 46 875).

- 2010-2014. Russian Government Program for the Support of Leading Scientific Schools (grants NSh-5413.2010.1 and NSh-4995-2012.1, member of research group). Total funding: RUR 2000000 (approximately $ 62 500).

- 2008-2014. Participation in several research projects funded by the Russian Foundation for Basic Research. RFBR grants 08-01-00565 (project in 2008-2010, member of research group), 08-01-91202 (joint Russian-Japanese RFBR-JSPS project in 2008-2009, member of research group), 11-01-00633 (project in 2011-2013, member of research group), 11-01-00735 (project in 2011-2013, member of research group). Total funding: RUR 6351000 (approximately $ 198 000).

Students supervised:

2024: Rafael Sarabia (UTRGV), MS Math thesis in progress.

2024: Patrick Kaylor (UTRGV), MS Math thesis in progress.

2023: Rafael Silva (UTRGV), MS Math project defended.

2022: Ariana Hinojosa (UTRGV), MS Math thesis defended.

2015-presented: supervised 26 students in their undergraduate capstone research projects.

Theses and projects committees and reviews:

Official Ph.D. Dissertation reviewer for A.Nikolaev, Yaroslavl State University, December 2011.
M.Sc. Diploma reviewer for A.Gavrilyuk, Moscow State University, May 2010, and F.Nilov, Moscow State University, May 2013.
Master's thesis committee member for Eduardo Ramirez, UTRGV, December 2018.
Master's project committee member for K.Gonzalez (2015), B.Martinez (2015), H.Ouda (2016),

J.Ebert (2016), J.Lopez (2016), J.Quintanilla (2016), J.Kidd (2017), M.Rivera (2017), R.Pena (2022), J.Druska (2024).

Teaching experience:

The University of Texas Rio Grande Valley:

Fall 2015: Linear Algebra, Modern Algebra I, Algebra I (graduate level, online).

Spring 2016: Modern Algebra I, Modern Geometry II, Research Experience in Math (5 students).

Summer II 2016: Calculus II, Research Experience in Math.

Fall 2016: Calculus II, Modern Geometry I (combined online and on-campus section), Modern Algebra I, Algebra I (graduate level, online), Math Project, Research Experience in Math.

Spring 2017: Calculus II, Modern Geometry II, Math Project, Research Experience in Math.

Summer I 2017: College Algebra (online), Pre-Calculus, Math Project.

Fall 2017: Calculus II, Applied Discrete Mathematics, Perspectives in Math & Science (UTeach course), Math Project.

Spring 2018: Calculus II, Math Project, Research Experience in Math.

Summer I 2018: Calculus II, Differential Equations.

Fall 2018: Precalculus, Calculus II, Math Project.

Spring 2019: Modern Geometry I, Math Project.

Summer II 2019: Calculus I, Linear Algebra.

Fall 2019: Calculus III, Math Project, Linear Algebra (graduate level, online).

Spring 2020: Linear Algebra, Math Project.

Summer I 2020: Fundamentals of Measurement and Geometry II.

Summer II 2020: Modern Geometry I.

Fall 2020: Linear Algebra, Intro to Math Proof, Modern Geometry I.

Fall 2021: Linear Algebra, Calculus III, Thesis I.

Spring 2022: Calculus II, Intro to Math Proof, Math Project, Thesis II.

Fall 2022: Modern Geometry I, Math Project, Linear Algebra (graduate level, online).

Spring 2023: Calculus II.

Fall 2023: Linear Algebra (graduate level), Master's Project, Thesis I.

Spring 2024: Modern Geometry I, Thesis I, Thesis II.

Summer I 2024: Modern Geometry I, Algebraic Geometry (graduate level), Thesis I.

Summer II 2024: Thesis II

Fall 2024: Calculus II, Cryptology and Codes (graduate level).

Spring 2025: Math Project

The University of Texas at Brownsville:

Spring 2015: Calculus I (online), Calculus II.

Fall 2014: Calculus I, Calculus II.

Moscow State University:

Spring 2010: Linear Algebra.

Fall 2010: Analytic Geometry.

Spring 2011: Linear Algebra (2 sections).

Spring 2012: Linear Algebra.

Spring 2013: Linear Algebra (2 sections).

Spring 2014: Linear Algebra (2 sections).

Moscow Institute of Physics and Technology:

Fall 2009: Introduction to Mathematical Analysis.

Spring 2010: Multivariable Mathematical Analysis, Integrals, Series.

Fall 2010: Multiple Integrals and Vector Analysis; Differential Equations I.

Spring 2011: Harmonic Analysis (2 sections); Differential Equations II.

Fall 2011: Multiple Integrals and Vector Analysis; Differential Equations I.

Spring 2012: Harmonic Analysis.

Fall 2012: Introduction to Mathematical Analysis.

Spring 2013: Multivariable Mathematical Analysis, Integrals, Series.

Yaroslavl State University:

Spring 2012: Delaunay Triangulations.

Departmental service (selected):

2015–present: Organizer of Pure Math Seminar (School of Mathematical & Statistical Sciences, UTRGV).

2019–2021: member of the Ph.D. Planning Committee (School of Mathematical & Statistical Sciences, UTRGV).

2023–present: Co-organizer of Brownsville Seminar (School of Mathematical & Statistical Sciences, UTRGV).

2023–present: MS Mathematics Program Coordinator (School of Mathematical & Statistical Sciences, UTRGV).

College level service (selected):

2016–2017: SMSS Director Search Committee (College of Sciences, UTRGV).

2017–2018: UTeach Curriculum Committee (College of Sciences, UTRGV).

2023: COS Annual Research Conference Program Committee (College of Sciences, UTRGV).

2024: CoS Dean Search Committee (College of Sciences, UTRGV).

Other service and synergistic activities (selected):

2002–2014: Member of jury of All-Russian Mathematical Olympiad.

2002–2015: One of trainers of Russian team for International Mathematical Olympiad.

2007: Deputy Leader of the Russian National Team for International Mathematical Olympiad, Vietnam.

2010: International Conference "Geometry, Topology, Algebra and Number Theory, Applications" dedicated to the 120th anniversary of Boris Delone, Steklov Mathematical Institute of RAS and Lomonosov Moscow State University, Moscow, Russia. Secretary of the Organizing Committee.

2012: Yaroslavl, Russia, The International Conference "Discrete Geometry" dedicated to the centennary of A.D. Alexandrov, Yaroslavl, Russia. Vice-chair of the Organizing Committee.

2013: International Conference "Geometry, Topology, and Applications" dedicated to upcoming 70th birthday of Nikolay Dolbilin, Yaroslavl, Russia. Vice-chair of the Organizing Committee.

2015: Vice-editor of the special volume "Geometry, Topology, and Applications" of Proceedings of the Steklov Institute of Mathematics (volume **288**) dedicated to 70th birthday of Nikolay Dolbilin.

2020, 2021: coordinator for International Mathematical Olympiad.

2015-present: Co-organizer of the series of Discrete Geometry and Algebraic Combinatorics Conferences, organized by the Department of Mathematics, University of Texas at Brownsville and School of Mathematical and Statistical Sciences of the University of Texas Rio Grande Valley.

Editorial service:

Section editor for *Contributions to Discrete Mathematics* (since 2020).

Refereeing (selected): European Journal of Combinatorics, Discrete & Computational Geometry, Moscow Mathematical Journal, Australasian Journal of Combinatorics, SIAM Journal on Discrete Mathematics, Acta Crystallographica Section A, Electronic Journal of Combinatorics, Mathematika, Experimental Mathematics, Journal of Mathematical Analysis and Applications, Pattern Recognition, Foundations of Computational Mathematics, Bulletin of the London Mathematical Society, Journal of Mathematical Biology.

Reviewer for Israel Science Foundation and Swiss National Science Foundation grant proposals.

Translations: Member of the group of translators of Günter Ziegler's "Lectures on Polytopes" from English to Russian. The Russian translation published by MCCME in 2014.