

CURRICULUM VITAE: Oksana Shatalov (Avshalumova)

Department of Mathematics
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Education

Ph.D. (Applied Mathematics), Technion - Israel Institute of Technology Jun 2001
M.Sc. (Applied Mathematics), Technion - Israel Institute of Technology Jun 1996
B.S. (Applied Mathematics, Summa Cum Laude), Azerbaijan State Jun 1991
Oil Academy, Baku

Employment

Texas A&M University, Department of Mathematics

<i>Assistant Head for APT Faculty Affairs</i>	Sep 2022	-	present
<i>Instructional Professor</i>	Sep 2020	-	present
<i>Director of the Distance Masters Program</i>	Sep 2019	-	present
<i>Instructional Associate Professor</i>	Sep 2017	-	Aug 2020
<i>Instructional Assistant Professor</i>	Jan 2015	-	Aug 2017
<i>Senior Lecturer</i>	Sep 2014	-	Dec 2014
<i>Lecturer</i>	Aug 2011	-	Aug 2014
<i>Visiting Assistant Professor</i>	Aug 2008	-	Aug 2011

The Abdus Salam International Center for Theoretical Physics (Italy)

Lecturer at Postgraduate Diploma Programme in Mathematics for talented young scientists from developing countries Sep 2005 - May 2008

SISSA - International School for Advanced Studies (Italy) and Scuola Normale Superiore di Pisa (Italy)

Postdoctoral fellowship at the Training and Mobility of Researchers (TMR) programme “Evolution Equations for Deterministic and Stochastic Systems” Jun 2003 - Nov 2003

”Just Ask” company - a provider of distant learning platforms in the fields of science, engineering, mathematics and statistics (Israel)

Mathematics content writer Jun 2001 - Jun 2002

Technion - Israel Institute of Technology, Department of Mathematics

<i>Postdoctoral fellowship</i>	Feb 2002	-	Aug 2002
<i>Lecturer</i>	Feb 2000	-	Jan 2002
<i>Teaching assistant</i>	Feb 1994	-	Jan 2000

Research Papers

- *A recursive construction of projective cubature formulas and related isometric embeddings*, with Yu.I. Lyubich, <http://arxiv.org/abs/1310.4562> (2013)
- *Polynomial functions on the classical projective spaces*, with Yu.I. Lyubich, *Studia Math.* **170**, (2005), no. 1, 77-87.
- *Isometric embeddings of finite dimensional ℓ_p -spaces over the quaternions*, with Yu.I. Lyubich, *St.Petersburg Math.J.*, **16**(1)(2004), 15-32.
- *Euclidean subspaces of the complex spaces ℓ_p^n constructed by orbits of finite subgroups of $SU(m)$* , with Yu.I. Lyubich, *Geom. Dedicata*, **86**(2001), 169-178.
- *Almost Euclidean planes in ℓ_p^n* , with Yu.I. Lyubich, *Func. Anal. and its Appl.* **32**, no 1, (1998), 59-61.
- *Isometric Embeddings $\ell_2^m \rightarrow \ell_p^n$ and Cubature Formulas over Classical Fields*, PhD Thesis, Technion - Israel Institute of Technology, Haifa, 2001.
- *Euclidean and almost Euclidean sections of classical finite-dimensional Banach spaces*, Master Thesis, Technion -Israel Institute of Technology, Haifa, 1996.
- *On the numerical range of finite matrix*, with H.A. Issayev, *Turk. J. Math.* **16**(1992), 50-61.
- *On one problem of classification with fuzzy initial information*, with A.K.Kerimov, Theses of all-union scientific conference: "Intellectualization of control systems", (1991) 31-32, Baku, USSR.
- *On one problem of automatic classification of images*, with A.K.Kerimov, Theses of reports of Second Republican Seminar "Problems of making of processing, analysis and identification of images", (1989) 99-100, Tashkent, USSR.

Educational Writing

- (with P. Kuchment and Z. Sunic) *Lecture Notes with elements of accelerated and inquiry-based learning: "SMaRT Camp. Lectures and problems"*, Texas A&M University SMaRT Camp (2013-2018), 84 pages.
- (with P. Kuchment and L.Kunyansky) *"Harmonic Analysis and Medical Imaging"*, Texas A&M University SMaRT Camp (2018).
- *Lecture Notes "Introduction to Spectral theory"*, The Abdus Salam International Center for Theoretical Physics, Diploma Programme in Mathematics (2008), 52 pages.

Teaching and Service Awards

- Texas A&M University
 - *Public Engagement and Outreach Award* (College of Arts and Sciences) 2023
 - *Provost Academic Professional Track Faculty Teaching Excellence Award* 2022
 - *Outstanding Service Award* (Department of Mathematics) 2019
 - *Association of Former Students College-Level Teaching Award* 2013
 - *Outstanding Teaching Award* (Department of Mathematics) 2012
- Technion - Israel Institute of Technology
 - *Excellent Lecturer Award* (University level) 2002
 - *Excellent Teaching Assistant Prize* (University level award) 1995, 1998, 1999, 2000
 - *Excellent Teaching Assistant Award* (Department of Mathematics) 1998

Awards in Study and Research

- *Hanani Prize for Excellence in Ph.D.* (Department of Mathematics, Technion - Israel Institute of Technology) 2001
- *Scholarship for Excellent Studies* (Graduate School, Technion - Israel Institute of Technology) 1999, 2000
- *Gutwirth Memorial fellowship for excellence in research for Ph. D. students in Israel* (Technion - Israel Institute of Technology) 1996

Grants & Funding

- AMS Grant for Summer Mathematics Research Training High School (SMaRT) Camp at Texas A&M University; \$4000 (co-PI) 2016
- MAA Grant for Summer Mathematics Research Training High School (SMaRT) Camp at Texas A&M University; \$6000 (co-PI) 2016
- *Professional Development and Community Building Initiative* Texas A&M University, ADVANCE Center for Women Faculty; \$4200 (PI) 2013-2014

TEACHING

- Texas A&M University, Mathematics Department
 - Math 141 (Business Mathematics I)
 - Math 151/ 151-Honors (Engineering Mathematics I)
 - Math 152/152-Honors (Engineering Mathematics II)
 - Math 166 (Topics in Contemporary Mathematics II)
 - Math 171 (Analytic Geometry and Calculus)
 - Math 172 (Calculus)
 - Math 221 (Several Variables Calculus)
 - Math 251 (Engineering Mathematics III)
 - Math 300/300-Honors (Foundations of Mathematics)
 - Math 308 (Differential Equations)
 - Math 645 (A survey of Mathematical Problems I)
 - Math 646 (A survey of Mathematical Problems II)
 - Math 685 (Directed Studies)
 - Math 689 (Special Topic: A Transition to Graduate Level Mathematics)
- Abdus Salam International Center for Theoretical Physics (Italy)
 - Calculus in \mathbb{R}^n
 - Complex Analysis
 - Functional Analysis I (Introduction to Spectral Theory)
- Technion - Israel Institute of Technology, Department of Mathematics
 - Calculus
 - Ordinary Differential Equations
 - Linear Algebra
 - Mathematics for Medical Students

Conferences and Seminars

- 19th Annual Wakonse South Teaching Conference (Talk: “*Bringing Calculus to life or life to Calculus*”) Apr 2016
- 16th Annual Wakonse South Teaching Conference (session facilitator) Apr 2013
- Research Workshop Of The Israel Science Foundation “Ergodic Theorems, Group Actions and Applications”, Eilat, Israel (Talk: “*Isometric embeddings ℓ_2^m into ℓ_p^n via group actions*”) May 2011
- Conference “Optimal Configurations on the Sphere and Other Manifolds”, Vanderbilt University (Talk: “*Inductive construction of projective cubature formulas*”) May 2010
- Center for Approximation Theory/Banach space Joint Seminar, Texas A&M University (Talk: “*Isometric embeddings between classical Banach spaces over classical fields and cubature formulas*”) Feb 2010
- Second Joint Cyprus-Israel Mathematics Workshop, Tel-Aviv, Israel (Talk: “*Cubature formulas over projective spaces and isometric embeddings $\ell_2^m \rightarrow \ell_p^n$* ”) May 2000
- Functional Analysis Seminar, Technion - Israel Institute of Technology (Talk: “*Isometric Embeddings $\ell_2^m \rightarrow \ell_p^n$ and Cubature Formulas over Classical Fields*”) Jun 2000
- The Eleventh Haifa Matrix Theory Conference, Haifa, Israel (Talk: “*Euclidean subspaces of ℓ_p^m constructed by orbits of finite subgroups of $SU(m)$.*”) Jun, 1999

Webinars/Workshops/Conferences Participation

- APT to Lead Workshop, Texas A&M University Jan - May 2023
- TTLC (Transformational Teaching & Learning Conference), Texas A&M University 2021 -2023
- Workshop “*Stop the Sisyphus Syndrome: Designing Writing Assignments for a Lighter Workload and Better Results*”, Texas A&M University July 2019
- Workshop “*G.P.S.–Guided Pathways to Success for Academic Professional Track Faculty Planning Your Journey*”, Texas A&M University May 2019
- Webinar “*Utilizing Peer Review Software as a Feedback Tool (Peerceptiv)*”, Texas A&M University Mar 2018
- Workshop “*Hand Me That Monkey Wrench: Technological Tools to Improve Your Students Writing*”, Texas A&M University Writing Center Jun 2017
- Webinar “*The Online Courseware Revolution and the Potential for a Global Classroom*”, Inside Higher Ed Apr 2017
- *Core Curriculum Workshop* (Texas A&M University) Dec 2016
- Workshop “*W Course Primer: Assign It, Teach It, Grade It*” (University Writing Center, TAMU) 2014
- Workshop “*Teaching Statement, Teaching Portfolio, and Course Portfolio*” (Center for Teaching Excellence, TAMU) Sep 2013

SERVICE

Public Lectures and Educational Presentations

- 2022 *Classical Greek Problems* (Elementary School National Championship) – Attendance: about 600
- 2022 *The Three Unsolved Problems of Antiquity* (Summer Educational Enrichment in Mathematics (SEE-MATH), TAMU) – Attendance: about 200
- 2022 *How to Motivate Your Students to Go the Extra Mile* (Math Dept., TAMU)
- 2022 *Insolvability Proofs and Classical Greek Problems* (TAMU Math Club)
- 2019 *To induct or not to induct: that is the question* (Math Dept., TAMU)
- 2018 *Math Assignments* (Brown Bag Lunch Series, Math Dept., TAMU)
- 2017 Poster: *Texas A&M SMaRT Camp* (JMM (Joint Mathematics Meeting), Atlanta)
- 2016 *Bringing Calculus to life or life to Calculus* (19th Annual Wakonse South Teaching Conference)
- 2016 *Insolvability of classical Greek problems* (Math Dept., TAMU)
- 2014 *Domino puzzles, invariants and walking along the grids and bridges* (TAMU Math Circle)
- 2014 *Invariants, coloring, and graphs* (TAMU Math Circle)
- 2014 *Farey numbers* (TAMU Math Circle)
- 2013 *Bringing Calculus to Life... or Life to Calculus* (Math Dept., TAMU)
- 2012 *Invariants* (TAMU Math Circle)
- 2012 *Chess Board and Other Types of Coloring* (TAMU Math Circle)
- 2012 *Graphs*(TAMU Math Circle)
- 2012 *Pick's Theorem and Farey's Sequences* (Summer Educational Enrichment in Mathematics (SEE-MATH), TAMU)

Committee Work

National level:

- | | | |
|---|-------------------------------|--|
| - American Mathematical Society Young Scholars Awards Committee | <i>chair</i>
<i>member</i> | July 2022-present
July 2021- Jun 2022 |
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College and University Level:

- | | | |
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| - Foundation Sciences Department P&T Subcommittee (TAMU Galveston) | <i>member</i> | Fall 2021 |
| - Faculty Senate Personnel and Welfare Committee | <i>member</i> | Fall 2021 - May 2022 |
| - College of Science Committee on Distance MS in Science | <i>member</i> | 2020 |

Departmental Level:

- APT Committee	<i>chair</i>	Fall 2022 - present
- Subcommittee P&IP (promotion to full Instructional Professor)	<i>member</i>	2021 - present
- APT Teaching Committee	<i>member</i>	2020 - 2021
- P&T (Promotion and Tenure) Subcommittee	<i>member</i>	2018 - 2020
- Math 696 (Mathematical Communication and Technology) Catalog Description Evaluation Committee	<i>chair</i>	2020
- Outreach Committee	<i>chair</i>	Jul 2017 - present
	<i>member</i>	Oct 2014 - Jul 2017
- Math 220 (Foundations of mathematics) Textbook Adoption Committee	<i>member</i>	2017
- Math 251 (Engineering Mathematics III) Alignment Committee	<i>chair</i>	2017
- APT Committee	<i>member</i>	Fall 2016 - Spring 2019
- High School Math Contest Committee	<i>chair</i>	2015-2022
	<i>member</i>	2012-2014
- Planning committee of <i>Women's Community Building Initiative</i> (ADVANCE Center for Women Faculty Departmental Mini Grants)	<i>chair</i>	Jun 2013 - Jun 2014
	<i>member</i>	Jun 2012 - Jun 2013

Outreach Activities

- July 2022 - **guest speaker**, *Summer Educational Enrichment in Math (SEE-Math)* for intermediate and middle school students, Texas A&M University
- June 2022 - **guest speaker**, *Elementary School National Championship* (mathleague.org)
- June 2022 - **guest speaker**, *TAMU Math Club*
- 2015 - 2022 - **director**, Department of Mathematics *High School Math Contest* (Texas-wide)
- 2018, 2019 & 2022 -**faculty sponsor**, *Elementary School National Championship* (mathleague.org)
- 2016 - present - **co-director** and the **main lecturer**, *Summer Mathematics Research Training High School (SMaRT) Camp* at Texas A&M University (USA-wide Camp)
- 2012, 2014, 2018, 2019 - *volunteer*, *Department of Mathematics Mini-Fair (Open House)*
- 2018 - **organizer**, *NSF Broader Impacts & Education Plan Seminar & Expo*, presented the SMaRT Camp booth
- Feb 2017 - **organizer** of Math Booth at *Texas A&M STEMfest 2017*, organized by The Society of Women Engineers partnered with Girl Scouts of Central Texas
- Apr 2013, 2015 - **co-organizer**, “Mathematical Art - enjoy and create!” exhibition and activity (*Department of Mathematics Mini-Fair (Open House)*)
- 2012-2014 - **exam writer** and **power team grader**, Department of Mathematics *High School Math Contest*

- 2012, 2014 - **instructor**, *TAMU Math circle*, the Mathematical enrichment activity for intermediate and middle school students
- Jun 2013 - **lecturer**, *(SMaRT) Camp* at Texas A&M University (USA-wide Camp)
- February 2013 - **judge** (Texas A&M University System Louis Stokes Alliance for Minority Participation (TAMUS LSAMP) 9th Annual Symposium)
- Jun 2012, 2013 - **co-organizer**, “Mathematical Tournament” activity at *(SMaRT) Camp*
- Aug 2012 - **instructor**, *Summer Educational Enrichment in Math (SEE-Math)* for intermediate and middle school students, Texas A&M University

Professional Teaching Related and Other Service

- 2021/2022, **organizer** in an advisory capacity of the APT Teaching Seminar.
- Fall 2021 - **external reviewer** of Doctor of Science (Habilitation) Dissertation for Bukhara State University (Uzbekistan)
- Fall 2021 - present, **senator** for the College of Science in the TAMU Faculty Senate, elected by the faculty of the College of Science.
- 2020 -**reviewer** for Cambridge University Press (453 pages book)
- 2018 - **session facilitator**, Math Department External Review meeting with APT faculty
- 2017 -**reviewer** for John Wiley & Sons, Incorporated (book chapter).
- 2016 - assisted in the Math 172 Core Recertification process
- 2015 - **invited participant** at Writing Center External Review Meeting
- Spring 2013, 2014 - **instructor**, Week in Review for Math 251 (*Engineering Calculus III*)
- 2013 - **fellow**, *Wakonse-South Conference* on College Teaching
- Fall 2012 - **instructor**, Week in Review for Math 152 (*Engineering Calculus II*)

GRADUATE STUDENTS Mentoring

SERVED AS PRIMARY ADVISOR (CHAIR)

Current Students: Master’s degrees (non-thesis)

14. Sarah Addington
13. Taylor Boylan
12. Chad Anthony Campbell (Co-Chair with R.Rahm)
11. Maxwell Cao
10. Nicola Gonsalves
9. James Kruegeres
8. Heather Holden
7. Jason Nagaoka
6. Julia MacDougall

5. Michelle McMahon
4. Cody Nash
3. Juliana Orcasitas
2. Jacon Selensky (Co-chair with G. Petrova)
1. Janelle L. Stelle

Graduated Students: Master's degrees (non-thesis)

12. Elizabeth Cuyler (May 2023)
11. Rebekah Londene (Dec 2022)
10. Rebekah Meece (Dec 2022)
9. Trevor Egan (Co-Chair with H. Yan, Dec 2022)
8. Steven Bosze (May 2022)
7. Eric Kimberly (May 2022)
6. Julia West (Co-Chair with P. Kuchment, May 2022)
5. Katherine Sulek (Dec 2021)
4. Darlene Price (Dec 2021)
3. Susan Georgson Harris (Dec 2021)
2. Elizabeth LeBouef (Co-Chair with J. Whitfield, Aug 2021)
1. Kaitlyn Barnhill (Co-Chair with K. Reihani, Aug 2021)

SERVED AS COMMITTEE MEMBER

Current Students: Master's degrees (non-thesis)

4. John Harvey
3. Sarah McIntyre
2. Osman Quinteros
1. Dacia Wright

Graduated Students: Master's degrees (non-thesis)

2. Cheryl Kessler (Dec 2021)
1. William B. Boyer (Aug 2021)

Graduated Students: PhD

1. Clifford Shelton (May 2022)