

# Curriculum Vitae

## GAIK AMBARTSOUMIAN

### Mailing Address:

Department of Mathematics  
University of Texas at Arlington  
P.O. Box 19408  
Arlington, TX 76019-0408

**Tel:** (817) 272-3384 (w)

**Fax:** (817) 272-5802

**E-mail:** gambarts@uta.edu

**URL:** <https://gambarts.utasites.cloud/>

### Education

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#### Texas A&M University (TAMU)

*Ph.D. in Mathematics*

- Thesis title “Spherical Radon transforms and mathematical problems of thermoacoustic tomography”
- Overall GPA 4.0
- Thesis advisor: Dr. Peter Kuchment

College Station, TX

08/2001-08/2006

#### Obninsk Institute of Nuclear Power Engineering (OINPE)

*Mathematician-engineer in Applied Mathematics*

- Diploma with honors
- Thesis title “Analysis of nonlinear dynamical models similar to cascades by iterated functions method”
- Overall GPA 4.0
- Thesis advisor: Dr. Alexandr V. Burobin

Obninsk, Russia

09/1995-02/2001

### Professional Experience

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- Associate Professor at the Department of Mathematics,  
The University of Texas at Arlington  
Arlington, TX  
09/2013 – present
- Assistant Professor at the Department of Mathematics,  
The University of Texas at Arlington  
Arlington, TX  
09/2006 – 08/2013
- Teaching/Research Assistant at the Department of Mathematics,  
Texas A&M University  
College Station, TX  
09/2001 – 07/2006
- Lecturer,  
Obninsk Mathematical College (OMC)  
Obninsk, Russia  
09/2000-06/2001
- Research Assistant at the Department of Applied Mathematics,  
Obninsk Institute of Nuclear Power Engineering  
Obninsk, Russia  
09/1998-02/2001

### Visiting and Adjunct Positions

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- Visiting Professor in the College of Science and Engineering,  
American University of Armenia (AUA)  
Yerevan, Armenia  
09/2013 – 12/2013
- Visiting Professor at the Centre for Applicable Mathematics,  
Tata Institute of Fundamental Research (TIFR)  
Bangalore, India  
12/2012, 06/2013

- Adjunct Faculty of the Graduate Program in Biomedical Engineering, UT Southwestern Medical Center (UTSW) Dallas, TX  
02/2008 – 08/2011
- Research Member, The Mathematical Sciences Research Institute (MSRI) Berkeley, CA  
08/2010 – 12/2010
- Intern at General Electric Medical Systems, Applied Science Laboratory of GE Medical Systems Milwaukee, WI  
05/2004 – 08/2004

## Current Research Interests

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- Integral Geometry
- Inverse Problems
- Computerized Tomography
- Mathematical Problems of Imaging

## Grant Support

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- **Principal Investigator**, \$385,127. Subaward of the following grant: “Development of the human dynamic neurochemical connectome scanner”  
PI: Ciprian Catana, Massachusetts General Hospital & Harvard Medical School  
\$4,682,920. NIH, NIBIB/NINDS 1-U01-EB029826-01, BRAIN Initiative: Development of Next Generation Human Brain Imaging Tools & Technologies  
Arlington, TX  
09/2020-05/2024
- **Principal Investigator** (with Co-PI Venkateswaran Krishnan), \$197,628  
“Conical Radon transforms and their applications in tomography”,  
NSF DMS-1616564, National Science Foundation, Division of Mathematical Sciences  
Arlington, TX  
09/2016-08/2020
- **Principal Investigator**, \$35,000 “Integral geometric problems in tomography”, # 360357, Mathematics and Physical Sciences-Collaboration Grants for Mathematicians, Simons Foundation  
\* *Stopped in 2016 due to the reception of the NSF DMS-1616564 grant.*  
Arlington, TX  
09/2015-08/2020\*
- **Principal Investigator** (with Co-PI Venkateswaran Krishnan), \$175,899  
“Elliptical Radon transforms in image reconstruction”, NSF DMS-1109417  
National Science Foundation, Division of Mathematical Sciences  
Arlington, TX  
08/2011-07/2015
- **Principal Investigator** (with Co-PIs Wei Qian and Daniel Terreros), \$150,000  
“Image reconstruction problems in tomosynthesis” NHARP 003656-0109-2009  
Norman Hackerman Advanced Research Program Consortium Grant  
Arlington, TX  
08/2010-05/2013
- **Co-PI** (with PI Matthew Lewis and Co-PI Tuncay Aktosun), \$770,818  
“Acoustic inverse scattering for breast microcalcification detection” BC063989  
Department of Defense Medical Research Program Synergistic Idea Award  
Arlington, TX  
01/2008-08/2011
- **Co-PI** (with PI Jianzhong Su, Co-PI’s Xin Lu and Hua Shan), \$25,000  
“AIMS Seventh International Conference on Dynamical Systems and Differential Equations”, NSF DMS-0738356, National Science Foundation  
Arlington, TX  
04/2008-03/2009
- **Principal Investigator**, \$10,000, REP-GCS07457,  
“Some problems of constraint reconstruction in tomography”  
The University of Texas at Arlington Research Enhancement Program  
Arlington, TX  
09/2007-01/2009

## Honors and Awards

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- 2018-2019 Guest Editor of a special issue of the journal “Inverse Problems” on “Generalized Radon transforms and applications in tomography”, IOP Bristol, UK
- 2017 Plenary talk at the conference “100 Years of the Radon Transform”, The Radon Institute of Computational and Applied Mathematics Linz, Austria
- 2014 US Junior Oberwolfach Fellow, The Mathematisches Forschungsinstitut Oberwolfach Oberwolfach, Germany
- 2012-2013 Outstanding Faculty Teaching Award, College of Science, The University of Texas at Arlington Arlington, TX
- 2011-2013 Structured Quartet Research Ensembles (SQuaREs) Member The American Institute of Mathematics Palo Alto, CA
- 2010 MSRI Research Member The Mathematical Sciences Research Institute Berkeley, CA
- 2009 Mathematical Research Communities (MRC) Member American Mathematical Society Snowbird, UT
- 2007-2008 Project NEXt Fellow Mathematical Association of America Washington, DC
- 2006 L.F. Guseman Prize in Mathematics Texas A&M University College Station, TX
- 2006 VIGRE Match Fellowship in the Department of Mathematics Texas A&M University College Station, TX
- 2005-2006 Barnes & Noble Academic Excellence Scholarship Texas A&M University College Station, TX
- 2005 First Place Winner of the Student Research Week Texas A&M University College Station, TX
- 2003-2004 AUF Fellow in the Department of Mathematics College of Science, Texas A&M University College Station, TX
- 2001 Regent’s Fellow in the Department of Mathematics College of Science, Texas A&M University College Station, TX
- 2001 Obninsk City Fellow, Program of the First Naukograd of Russian Federation Obninsk, Russia
- 2001 Research Excellence Award at the Department of Applied Mathematics Obninsk Institute of Nuclear Power Engineering Obninsk, Russia

## Book

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- *Generalized Radon Transforms and Imaging by Scattered Particles: Broken Rays, Cones and Stars in Tomography*, World Scientific, 2023. ISBN-13: 9789811242434

## Papers in Preparation or Submitted

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1. *Microlocal analysis of the generalized V-line transforms*, with V. Krishnan and E. T. Quinto, in preparation.
2. *On the unique continuation principle for the spherical means transform in odd dimensions*, with D. Agrawal, V. Krishnan, and N. Singhal, in preparation.
3. *V-line 2-tensor tomography in the plane*, with R. K. Mishra, and I. Zamindar, submitted, preprint at [arXiv:2306.13245](https://arxiv.org/abs/2306.13245).
4. *Numerical implementation of generalized V-line transforms on 2D vector fields and their inversion*, with M. J. Latifi Jebelli and R. K. Mishra, submitted, preprint at [arXiv:2305.08975](https://arxiv.org/abs/2305.08975).

## Peer-reviewed Publications

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5. *Inversion and symmetries of the star transform*, with M. J. Latifi Jebelli, The Journal of Geometric Analysis, 31 (2021), pp 11270–11291.
6. *Improved interior tomography reconstruction based on prior knowledge*, with L. Florescu and E. Bridges, American Institute of Physics Conference Proceedings, vol. 2302, 060002 (2020).
7. *Generalized V-line transforms in 2D vector tomography*, with M. J. Latifi Jebelli and R. K. Mishra, Inverse Problems, 36 (2020), no. 10, 104002.
8. *The V-line transform with some generalizations and cone differentiation*, with M. J. Latifi Jebelli, Inverse Problems, 35 (2019), no. 3, 034003.
9. *V-line and conical Radon transforms with applications in imaging*, a chapter in "The Radon Transform: The First 100 Years and Beyond", edited by R. Ramlau and O. Scherzer, Radon Series on Computational and Applied Mathematics, De Gruyter, (2019), ISBN: 978-3110559415.
10. *Image reconstruction from radially incomplete spherical Radon data*, with R. Gouia-Zarrad, V. Krishnan, and S. Roy, European Journal of Applied Mathematics, vol. 29 (2018), issue 3, pp 470-493.
11. *Singular FIOs in SAR imaging, II: transmitter and receiver at different speeds*, with R. Felea, V. Krishnan, C. Nolan, and E. T. Quinto, SIAM Journal on Mathematical Analysis, vol. 50 (1), 2018, pp 591-621.
12. *Numerical inversion of a broken ray transform arising in single scattering optical tomography*, with S. Roy, IEEE Transactions on Computational Imaging, vol. 2 (2016), issue 2, pp 166-173.
13. *Inversion of a class of circular and elliptical Radon transforms*, with V. Krishnan, Contemporary Mathematics, vol. 653 (2015), 13174.
14. *Exact inversion of the conical Radon transform with a fixed opening angle*, with R. Gouia-Zarrad, Inverse Problems, 30 (2014), no. 4, 045007.
15. *Exterior/interior problem for the circular means transform with applications to intravascular imaging*, with L. Kunyansky, Inverse Problems and Imaging, 8, no. 2 (2014), pp 339-359.
16. *A Series formula for inversion of the V-line transform in a disc*, with S. Moon, Computers & Mathematics with Applications, vol. 66, Issue 9, Nov 2013, pp 1567-1572.
17. *Effect of refraction on dose reconstruction in optical-CT gel dosimetry*, with L. Florescu and C. Wu, Journal of Physics: Conference Series, 444 (2013), 012063.
18. *Microlocal analysis of an ultrasound transform with circular source and receiver trajectories*, with J. Boman, V. Krishnan, and E. T. Quinto, Contemporary Mathematics, vol. 598 (2013), pp 45-58.
19. *Invasion speed in cellular automaton models for T. cruzi vector migration*, with B. Crawford and C. Kribs-Zaleta, Bulletin of Mathematical Biology, vol. 75, no. 7 (2013), pp 1051-1081.

20. *A class of singular Fourier integral operators in synthetic aperture radar imaging*, with R. Felea, V. Krishnan, C. Nolan, and E. T. Quinto, Journal of Functional Analysis, 264 (2013), pp 246-269.
21. *Approximate inversion algorithm of the elliptical Radon transform*, with R. Gouia-Zarrad, Proceedings of ISMA 2012, Biomedical Applications (2012), ISBN 978-1-4673-0862-5.
22. *Inversion of the  $v$ -line Radon transform in a disc and its applications in imaging*, Computers & Mathematics with Applications, vol. 64, Issue 3, August 2012, pp 260–265.
23. *Effect of refraction on dose reconstruction in optical-CT gel dosimetry*, with L. Florescu and C. Wu, Medical Physics, 38 (2011) 3514.
24. *Inversion of the circular Radon transform on an annulus*, with R. Gouia-Zarrad and M. Lewis, Inverse Problems, 26 (2010) 105015 (11pp).
25. *Tomographic reconstruction of nodular images from incomplete data*, with M. Xie, American Institute of Physics Conference Proceedings, vol. 1301, pp 167-174, 2010.
26. *Reconstruction algorithms for interior and exterior spherical Radon transform-based ultrasound imaging*, with R. Vaidyanathan, M. Lewis, and T. Aktosun, Proceedings of SPIE, v. 7265, Medical Imaging: Ultrasonic Imaging and Signal Processing, (2009), 72651I pp1-8.
27. *Limited view thermoacoustic tomography*, with Y. Xu, L. Wang, and P. Kuchment, Chapter 6 in "Photoacoustic imaging and spectroscopy", CRC Press, 2009, pp 61-73.
28. *Thermoacoustic tomography: numerical results*, with S. K. Patch, Proceedings of SPIE, v. 6437, Progress in Biomedical Optics and Imaging, 8 (2007), no. 14, pp 6437 -47.
29. *A range description for the planar circular Radon transform*, with P. Kuchment, SIAM Journal on Mathematical Analysis, 38 (2006), no. 2, 681-692.
30. *On the injectivity of the circular Radon transform*, with P. Kuchment, Inverse Problems, 21 (2005) 473-485.
31. *Reconstruction in limited view thermoacoustic tomography*, with Y. Xu, L. Wang, and P. Kuchment, Medical Physics, 31(4) April 2004, 724-733.
32. *Continuation of functions representable by exponentials of infinite multiplicity with alternating exponents*, with A. Burobin, Mat. Zametki, Russian Academy of Sciences, 73 (2003), no. 2, 163-172 (Russian). English translation in: Mathematical Notes, vol. 73, no. 2, 2003, 155-162.

## Other Publications

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33. *Generalized Radon transforms and applications in tomography*, with E.T. Quinto, Inverse Problems, 36 (2019), no. 2, 020301.
34. *Inversion of the star transform*, with M. J. Latifi-Jebelli in Tomographic Inverse Problems: Theory and Applications. Oberwolfach Reports, 2019, edited by M. Burger, B. Hahn and E. T. Quinto, EMS, (2019), DOI: 10.4171/OWR/2019/4.
35. *Microlocal analysis and imaging*, with R. Felea, V. Krishnan, C. Nolan, and E. T. Quinto, a chapter in Mathematics of Planet Earth, edit. H. Kaper and C. Rousseau, SIAM, (2015), ISBN 978-1-611973-70-9.
36. *Integral geometry and mathematical problems of image reconstruction*, a chapter in Mathematical Models, Methods and Applications, edited by A.H. Siddiqi, P. Manchanda, and R. Bhardwaj, Springer, (2015), ISBN: 978-981-287-971-4.
37. *On the  $V$ -line Radon transform and its applications in imaging*, with R Gouia-Zarrad, and S. Moon in Mathematics and Algorithms in Tomography. Oberwolfach Reports, Vol. 11, Issue 3, 2014, edited by M. Burger, A. K. Louis and E. T. Quinto, EMS, (2014), DOI: 10.4171/OWR/2014/37.

## Technical Reports and Theses

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- *Recommendations to the Cancer Prevention and Research Institute of Texas (CPRIT)*, (with P. Fox, D. Sherry, A. Annapragada, J. Gelovani, M. Motamedi, W. Qian, and C. Van Den Berg) The University of Texas System, Imaging Working Group, Austin, 2009.
- *Spherical Radon transforms and mathematical problems of thermoacoustic tomography*, May 2006, Doctoral Dissertation, Texas A&M University
- *Thermoacoustic tomography - implementation of exact backprojection formulas*, (with S. K. Patch) ASL Technote #04-06, Applied Science Lab, GE Medical Systems, 2004.
- *Analysis of nonlinear dynamical models similar to cascades by iterated functions method*, February 2001, Diploma Thesis, Department of Applied Mathematics, Obninsk Institute of Nuclear Power Engineering.

## Selected List of Invited Presentations

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1. *V-line tensor tomography*, Mini-symposium on “Scattering and Spectral Imaging: Inverse Problems and Algorithms”, AIP-2023, 11th Applied Inverse Problems Conference  
Göttingen, Germany  
09/2023
2. *The star transform and its links to various areas of mathematics*, Mini-symposium on “The X-ray Transform and Its Generalizations: Theory, Methods, and Applications” AIP-2023, 11th Applied Inverse Problems Confer.  
Göttingen, Germany  
09/2023
3. *Generalized V-line transforms in tomography*, Oberwolfach Workshop on Tomographic Inverse Problems: Mathematical Challenges and Novel Applications, The Mathematisches Forschungsinstitut Oberwolfach  
Oberwolfach, Germany  
05/2023
4. *Broken rays, cones, and stars in tomography*, Mathematics & Statistics Colloquium, UNC Charlotte  
Charlotte, NC  
04/2023
5. *On integral geometry using objects with corners*, Mathematical Physics and Harmonic Analysis Seminar, Texas A&M University  
College Station, TX  
01/2023
6. *Inverse problems: the mathematical engine of medical imaging*, Jose Miguel Cimadevilla Memorial Research Seminar Series, St. Mary's University  
San Antonio, TX  
01/2023
7. *Generalized broken ray transforms in tomography*, 5-th Annual Meeting of the SIAM Texas – Louisiana Section, Houston  
Houston, TX  
11/2022
8. *Injectivity and stability of inversion of the star transform*, Medical Imaging Workshop, Special Semester on Tomography Across the Scales, The Radon Institute of Computational and Applied Mathematics, Linz  
Linz, Austria  
10/2022
9. *Broken rays, cones, and stars in tomography*, Applied and Computational Mathematics Seminar, Dartmouth College  
Dartmouth, NH  
10/2022
10. *Broken rays, cones, and stars in tomography*, Mathematics & Statistics Colloquium, University of South Florida  
Tampa, FL  
04/2022
11. *New properties of the star transform and its imaging applications*, IS22 – 2022 SIAM Conference on Imaging Science  
Online  
03/2022
12. *Inversion and symmetries of the star transform*, Canadian Mathematical Society, 2021 Winter Meeting  
Online  
12/2021
13. *Broken rays, cones, and stars in tomography*, School of Mathematical Sciences Colloquium, Rochester Institute of Technology  
Online  
11/2021

14. *2D vector tomography with broken rays and stars*,  
International Zoom Inverse Problems Seminar,  
<https://www.youtube.com/watch?v=sAG5bjHbMNM> Online  
04/2021
15. *Generalized V-line transforms in 2D vector tomography*,  
IS20 – 2020 SIAM Conference on Imaging Science Online  
07/2020
16. *Inversion and symmetries of the star transform*,  
Twelfth Conference of the Euro-American Consortium for Promoting  
the Application of Mathematics in Technical and Natural Sciences Online  
06/2020
17. *Automatic segmentation and 3D visualization of pelvic mesh using  
mathematical modelling and machine learning techniques in MRI*,  
with S. Roy, G. Khatri and P. Zimmern, Podium Presentation, Novel  
Techniques and Approaches in Basic Science, 49th ICS Annual Meeting Gothenburg, Sweden  
09/2019
18. *Lines, broken lines and stars in tomography*,  
Mini-symposium on Applied Mathematics in Tomography, Conference on  
Modern Challenges in Imaging, In the Footsteps of Allan Cormack On the 40-  
th Anniversary of his Nobel Prize, Tufts University, Medford Medford, MA  
08/2019
19. *Generalized Radon transforms and imaging from scattered particles*,  
Oberwolfach Workshop on Tomographic Inverse Problems: Imaging and  
Applications, The Mathematisches Forschungsinstitut Oberwolfach Oberwolfach, Germany  
01/2019
20. *Inversion of the star transform*,  
Mini-symposium on Inverse Problems in Tomography and Wave Propagation,  
4th Annual Meeting of SIAM Central States Section, Norman Norman, OK  
10/2018
21. *The broken-ray transform and its generalizations*,  
Mini-symposium on Generalized Radon Transforms and Applications,  
9-th International Conference on “Inverse Problems: Modeling and  
Simulation”, May 21-25, 2018, Malta Mellieha, Malta  
05/2018
22. *Generalizations of broken-ray transform and conical differentiation*,  
Special Session on 'Recent developments in Integral Geometry and  
Tomography, 2017 Fall AMS Southeastern Sectional Meeting, Orlando Orlando, Florida  
09/2017
23. *The broken-ray transform and its generalizations*,  
Plenary talk at the conference “100 Years of the Radon Transform”,  
The Radon Institute of Computational and Applied Mathematics, Linz Linz, Austria  
03/2017
24. *Mathematical problems of image reconstruction in medicine*,  
Seminar Series of Neuro Technical Development Group, Advanced Neuro-  
Science Imaging Research Lab, UT Southwestern Medical Center, Dallas Dallas, TX  
09/2016
25. *Generalized Radon transforms arising in single scattering optical tomography*,  
Special Session on Imaging Methods in Coupled Physics Models,  
The 11th AIMS Conference on Dynamical Systems, Differential Equations  
and Applications, Orlando Orlando, FL  
07/2016
26. *Generalized Radon transforms in tomography*,  
Mathematics Department Colloquium, Kent State University, Kent Kent, OH  
04/2016
27. *Broken-ray and conical Radon transforms in imaging*,  
Computational Science Seminar, UT Dallas, Dallas Dallas, TX  
10/2015
28. *Broken-ray and conical Radon transforms in imaging*,  
AMS Spring Western Sectional Meeting, Meeting #1110, Las Vegas Las Vegas, NV  
04/2015

29. *On the V-line Radon transform and its applications in imaging*, Oberwolfach Workshop on Mathematics and Algorithms in Tomography, The Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany  
08/2014
30. *Exterior problem of acoustic reflectivity imaging*, Special Session on Hybrid Imaging Methods, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Madrid, Spain  
07/2014
31. *Microlocal analysis of an elliptical Radon transform in circular geometry of data acquisition*, Special Session on Microlocal Analysis and the Inverse Conductivity Problem, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Madrid, Spain  
07/2014
32. *Generalized Radon transforms in tomography*, A series of lectures at the Advanced Instructional School on Theoretical and Numerical Aspects of Inverse Problems, Tata Institute of Fundamental Research , Bangalore, Bangalore, India  
06/2014
33. *Elliptical Radon transform in synthetic aperture radar imaging*, Special Session on Novel Developments in Tomography and Applications, 2014 Spring AMS Eastern Sectional Meeting, Baltimore, Baltimore, MD  
03/2014
34. *Spherical mean transform and its generalizations*, Research Seminar, Institute of Mathematics, Armenian Academy of Sciences, Yerevan, Yerevan, Armenia  
10/2013
35. *Generalized Radon transforms in image reconstruction problems*, Department of Mathematics and Mechanics, Yerevan State University, Yerevan, Armenia  
10/2013
36. *Four lectures on integral geometry and mathematical problems of image reconstruction*, Lecture Series at the Centre for Applicable Mathematics, Tata Institute of Fundamental Research , Bangalore, Bangalore, India  
06/2013
37. *Generalized Radon transforms in image reconstruction problems*, Department of Mathematics Seminar, Indian Institute of Science, Bangalore, Bangalore, India  
06/2013
38. *Reconstructing a function from its v-line Radon transform in a disc*, Complex Analysis and Dynamical Systems VI, Bar-ilan University, ORT Braude College, and the University of Miami, Naharia, Naharia, Israel  
05/2013
39. *Injectivity and inversion of ultrasound operators in the spherical geometry*, Conference on Computational Analysis of Inverse Problems and Partial Differential Equations, University of Central Florida, Orlando, Orlando, FL  
05/2013
40. *Reconstructing a function from its V-line averages in a disc*, Inverse Problems and Applications, Linköping University and Institut Mittag-Leffler, Linköping, Linköping, Sweden  
04/2013
41. *Integral geometry and tomography*, Colloquium, Centre for Applicable Mathematics, Tata Institute of Fundamental Research , Bangalore, Bangalore, India  
12/2012
42. *On generalized Radon transforms in ultrasound tomography*, 11-th Annual Conference of the Indian Society of Industrial and Applied Mathematics, Gautam Buddha University, New Delhi, New Delhi, India  
12/2012
43. *Generalized Radon transforms and image reconstruction problems*, Mathematics Department Colloquium, Virginia Tech University, Blacksburg, Blacksburg, VA  
11/2012
44. *The elliptical Radon transform and ultrasound tomography*, Fourth Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences, Varna, Varna, Bulgaria  
06/2012



45. *The elliptical Radon transform and ultrasound tomography*,  
BIOMATH 2012, Bulgarian Academy of Sciences, Sofia  
Sofia, Bulgaria  
06/2012
46. *Inversion of the V-Line Radon transform in a disc and its applications in imaging*, IS12 – 2012 SIAM Conference on Imaging Science, Philadelphia  
Philadelphia, PA  
05/2012
47. *Injectivity and exact inversion of ultrasound operators in the spherical geometry*, Partial Differential Equations Seminar, University of Houston  
Houston, TX  
04/2012
48. *Injectivity and exact inversion of ultrasound operators in the spherical geometry*, AMS 2012 Spring Southeastern Section Meeting, Tampa  
Tampa, FL  
03/2012
49. *Exact inversion of ultrasound operators in the spherical geometry*,  
Workshop on Geometric Analysis on Euclidean and Homogeneous Spaces,  
Tufts University, Boston  
Medford, MA  
01/2012
50. *Image reconstruction in acoustic reflectivity tomography*,  
Third Conference of the Euro-American Consortium for Promoting the  
Application of Mathematics in Technical and Natural Sciences, Sozopol  
Albena, Bulgaria  
06/2011
51. *On reconstruction in thermoacoustic tomography*,  
BIOMATH 2011, Bulgarian Academy of Sciences, Sofia  
Sofia, Bulgaria  
06/2011
52. *Generalized Radon transforms in SAR image reconstruction problems*, Applied  
Mathematics and Image Processing Summer Workshop, UT Pan American  
Edinburg, TX  
05/2011
53. *Image reconstruction in acoustic reflectivity tomography*,  
AIP 2011 – Applied Inverse Problems Conference, College Station  
College Station, TX  
05/2011
54. *Exterior problem of acoustic reflectivity imaging*, Harmonic Analysis and  
Integral Geometry Workshop, Louisiana State University, Baton Rouge  
Baton Rouge, LA  
01/2011
55. *On inversion of Radon transforms from partial data*,  
Second Conference of the Euro-American Consortium for Promoting the  
Application of Mathematics in Technical and Natural Sciences, Sozopol  
Sozopol, Bulgaria  
06/2010
56. *The generalized Radon transforms and their applications in tomography*,  
Mathematics Department Colloquium, Texas Christian University, Fort Worth  
Fort Worth, TX  
10/2009
57. *Overview of mathematics of thermoacoustic tomography*, Inverse Problems  
Workshop, AMS Mathematical Research Communities (MRC), Snowbird  
Snowbird, UT  
06/2009
58. *Integral geometry in medical imaging*, Research Colloquium,  
Department of Mathematics, Southern Methodist University, Dallas  
Dallas, TX  
10/2008
59. *On limited view tomography with side constraints*, American Mathematical  
Society, Spring Southeastern Sectional Meeting, Meeting # 1037, Baton Rouge  
Baton Rouge, LA  
03/2008
60. *Some mathematical problems of thermoacoustic tomography*,  
IS06 – 2006 SIAM Conference on Imaging Science 2006, Minneapolis  
Minneapolis, MN  
05/2006
61. *Image reconstruction in thermoacoustic tomography*, Institute of  
Mathematics and Applications (IMA), Imaging from Wave Propagation,  
Annual Program Year Workshop, Minneapolis  
Minneapolis, MN  
10/2005
62. *On reconstruction in thermoacoustic tomography* (poster presentation),  
The 8-th International Meeting on Fully Three-Dimensional Image  
Reconstruction in Radiology and Nuclear Medicine, Salt Lake City  
Salt Lake City, UT  
07/2005
63. *Numerical reconstructions in 3D thermo-acoustic tomography*,  
American Mathematical Society, 2005 Joint Mathematics Meeting, Atlanta  
Atlanta, GA  
01/2005

64. *Thermoacoustic tomography – reconstruction in 3D*, Applied Science Laboratory Special Research Forum, GE Healthcare Technologies, Milwaukee  
Milwaukee, WI  
08/2004
65. *The circular Radon transform and thermoacoustic tomography*, American Mathematical Society, Spring Eastern Sectional Meeting, Meeting # 997, Lawrenceville  
Lawrenceville, NJ  
04/2004
66. *Circular Radon transform, wave equation and thermoacoustic tomography*, 7<sup>th</sup> Annual Texas Partial Differential Equations Conference, College Station  
College Station, TX  
04/2004
67. *On injectivity of the circular Radon transform*, AMS, Fall Eastern Sectional Meeting, Meeting # 990, Binghamton  
Binghamton, NY  
10/2003
68. *Global existence of infinitely iterated exponentials with alternating exponents of different signs*, 2001 Voronezh Winter Mathematical School / Modern Methods of Functions Theory and Related Problems, Conference of Steklov Institute of Mathematics of Russian Academy of Sciences, Moscow State University, Voronezh State University, Voronezh  
Voronezh, Russia  
02/2001
69. *Analysis of a cascade type nonlinear dynamical system*, Differential Equations Seminar, Faculty of Computational Mathematics and Cybernetics, Moscow State University, Moscow  
Moscow, Russia  
12/2000
70. *On continuation of functions represented by infinitely iterated exponentials*, 1999 Voronezh Winter Mathematical School / Conference of Steklov Institute of Mathematics of Russian Academy of Sciences, Moscow State University, Voronezh State University, Voronezh  
Voronezh, Russia  
02/1999

## Workshops

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1. *Computational and Analytical Aspects of Image Reconstruction*, The Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence  
Providence, RI  
07/2015
2. *Inverse Problems and Spectral Theory*, Dedicated to 65-th Birthday of Peter Kuchment, Texas A&M University, College Station  
College Station, TX  
10/2014
3. *Mathematics and Algorithms in Tomography*, Mathematisches Forschungsinstitut Oberwolfach (MFO), Oberwolfach  
Oberwolfach, Germany  
08/2014
4. *Microlocal Analysis and Imaging*, SQuaREs workshop, The American Institute of Mathematics, Palo Alto  
Palo Alto, CA  
08/2011, 12, 13
5. *Mathematical Methods of Computed Tomography*, National Science Foundation, CBMS Conference, Arlington  
Arlington, TX  
05/2012
6. *Applied Inverse Problems*, Pre-Conference Workshop of AIP 2011, College Station  
College Station, TX  
05/2011
7. *Inverse Problems: Theory and Applications*, Mathematical Sciences Research Institute (MSRI), Berkeley  
Berkeley, CA  
11/2010
8. *Mathematics and Algorithms in Tomography*, Mathematisches Forschungsinstitut Oberwolfach (MFO), Oberwolfach  
Oberwolfach, Germany  
04/2010
9. *Mathematical Methods in Emerging Modalities of Medical Imaging*, Banff International Research Station (BIRS), Banff  
Banff, Canada  
10/2009

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| 10. <i>Inverse Problems</i> ,<br>AMS Mathematical Research Communities (MRC), Snowbird  | Snowbird, UT<br>06/2008                |
| 11. <i>Evolution Equations</i> , Clay Mathematics Institute Summer School<br>Swiss Federal Institute of Technology, Zürich                    | Zürich, Switzerland<br>06/2008-07/2008 |
| 12. <i>Inverse Scattering for Radar Imaging</i> ,<br>National Science Foundation, CBMS Conference, Arlington                                  | Arlington, TX<br>05/2008               |
| 13. <i>Imaging in Random Media</i> ,<br>National Science Foundation, CBMS Conference, Houston   | Houston, TX<br>05/2008                 |
| 14. <i>New Mathematics and Algorithms for 3D Image Analysis</i> , Institute for<br>Mathematics and Applications, Annual Program Year Workshop | Minneapolis, MN<br>01/2006             |
| 15. <i>Imaging from Wave Propagation</i> , Institute for Mathematics and Applications,<br>Annual Program Year Workshop, Minneapolis           | Minneapolis, MN<br>10/2005             |
| 16. <i>The Radon Transform and Applications to Inverse Problems</i> ,<br>American Mathematical Society Short Course Series, Atlanta           | Atlanta, GA<br>01/2005                 |
| 17. <i>Inverse Problems: Computational Methods and Emerging Applications</i> ,<br>Institute for Pure and Applied Mathematics, Los Angeles     | Los Angeles, CA<br>09/2003             |

## Supervised Postdoctoral Fellows

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1. *Rohit Kumar Mishra*, 2020 - 2021, University of Texas at Arlington, Arlington, Texas.  
Position after UTA: Assistant Professor of Mathematics,  
Indian Institute of Technology Gandhinagar, India
2. *Souvik Roy*, 2015, University of Texas at Arlington, Arlington, Texas.  
Position after UTA: Postdoctoral Researcher at the Department of Mathematics,  
University of Würzburg, Germany

## Supervised PhD Students

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1. *John Montalbo*, PhD 2020, University of Texas at Arlington, Arlington, Texas.  
Dissertation Title: "Inverse Problems and Forward Propagation of Optical Flow".  
Position obtained: Data Analyst at Tarrant County HIV Administrative Agency, Fort Worth, Texas.
2. *Sl-Ghi Choi*, PhD 2017, University of Texas at Arlington, Arlington, Texas.  
Dissertation Title: "Image Reconstruction from Incomplete Radon Data and Generalized Principal Component Analysis".
3. *Rim Gouia-Zarrad*, PhD 2011, University of Texas at Arlington, Arlington, Texas.  
Dissertation Title: "Some Problems of Integral Geometry in Advanced Imaging".  
Winner of "2011 Outstanding Graduate Research Award" at the Department of Mathematics, UTA.  
Position obtained: Assistant Professor of Mathematics at The American University of Sharjah, UAE.

## Supervised Master Students

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1. *Rawan Joudeh*, MS 2019, UTA. Position after MS: Data Scientist at Bank of America.
2. *Mohammad Javad Latifi Jebelli*, MS 2017, UTA. Position after MS: PhD Student, University of Arizona.
3. *David Hightower*, MS 2015, UTA. Position after MS: Specialist at Lockheed Martin.
4. *Spencer Lunderman*, MS 2015, UTA. Position after MS: PhD Student, University of Arizona.

5. *Ernesto Garcia*, MS 2012, UTA. Position after MS: PhD Student, CUNY.
6. *R S Vaidyanathan*, MS 2010, UTSW (co-supervised with Prof. Matthew Lewis).
7. *Rim Gouia*, MS 2009, UTA. Position after MS: PhD Student, University of Texas at Arlington.
8. *Ming Xie*, REP Project, MS 2008, UTA. Position after MS: PhD Student, University of Wisconsin.

## Supervised Undergraduate Students

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1. *Luke Overman*, 2020, independent research.
2. *Tom Overman*, 2017-2018 NSF supported REU program, 2020 independent research project.  
Position after BS: PhD student in Applied Mathematics at Northwestern University.
3. *Javier Salazar*, 2016-2017 NSF supported REU program, 2019 independent research project.  
Position after BS: PhD student in Electrical Engineering at the University of Michigan.
4. *Amanda Losh*, 2018-2019 NSF supported REU program.
5. *Kristofor Pas*, 2018-2019 NSF supported REU program.  
Position after BS: PhD student in Biomedical Engineering at the University of Virginia.
6. *Mostofa Hisham*, BS Honors Thesis, UTA 2018.  
Position after BS: PhD student in Physics at the Ohio State University.
7. *Mary Gockenbach*, 2017-2018 NSF supported REU program.  
Position after BS: PhD student in Mathematical Sciences at the University of Delaware.
8. *Katherine Livingston*, 2017-2018 NSF supported REU program.
9. *Srivani Gandikota*, 2016-2017 NSF supported REU program.
10. *Joyce Hong*, 2016-2017 NSF supported REU program.
11. *Brendon Hotchkiss*, 2016-2017 NSF supported REU program.
12. *Jesse Baum*, BS 2013, UTA.
13. *Clinton Kimberlin*, BS 2012, UTA.
14. *Hyung Wook Chun*, BS 2011, UTA.

## Dissertation/Thesis Committee Membership

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1. Suman Kumar Sahoo, PhD thesis external examiner (chair Venky Krishnan),  
Centre for Applicable Mathematics, Tata Institute of Fundamental Research, Bangalore, India, 2021.
2. Joonas Ilmavirta, PhD thesis pre-examiner (chair Mikko Salo),  
Department of Mathematics, University of Jyväskylä, Finland, 2014.
3. Ameya Godbole, PhD committee (chair Kamesh Subbarao), Mechanical & Aerospace Eng., UTA
4. Paul Quillen, PhD committee (chair Kamesh Subbarao), Mechanical & Aerospace Eng., UTA
5. Pavan Kumar Nuthi, PhD committee (chair Kamesh Subbarao), Mechanical & Aerospace Eng., UTA
6. Laura Suarez Henderson, PhD committee (chair Kamesh Subbarao), Mechanical & Aerospace Eng., UTA
7. Naif Abbad Abu Qarnayn, PhD committee (chair Souvik Roy), Mathematics, UTA
8. Ana Mendez, PhD committee (chair Hristo Kojouharov), Mathematics, UTA
9. Asma Alghamdi, PhD committee (chair Souvik Roy), Mathematics, UTA
10. Hussein Ed Duweh, PhD committee (chair Souvik Roy), Mathematics, UTA
11. Mesfer Hamad Alajmi, PhD committee (chair Souvik Roy), Mathematics, UTA
12. Hung Tran, PhD committee (chair Michaela Vancliff), Mathematics, UTA

13. Madhu Gupta, PhD committee (chair Souvik Roy), Mathematics, UTA
14. Fawaz Alalhareth, PhD committee (chair Hristo Kojouharov), Mathematics, UTA
15. Mohammed Alharbi, PhD committee (chair Christopher Kribs), Mathematics, UTA
16. Khoa Nguyen, PhD committee (chair Dimitar Grantcharov), Mathematics, UTA
17. Saber Ahmed, PhD committee (chair Dimitar Grantcharov), Mathematics, UTA
18. Ryan Jones, PhD committee (co-chairs Dimitar Grantcharov and Michaela Vancliff), Mathematics, UTA
19. Crystal Mackey, PhD committee (chair Christopher Kribs), Mathematics, UTA
20. Tyler Anway, PhD committee (chair David Jorgensen), Mathematics, UTA
21. Imelda Trejo, committee (chair Hristo Kojouharov), Mathematics, UTA
22. Mondal Hasan Zahid, PhD committee (chair Christopher Kribs), Mathematics, UTA
23. Ian Lim, PhD committee (chair Michaela Vancliff), Mathematics, UTA
24. Omomayowa Olawoyin, PhD committee (chair Christopher Kribs), Mathematics, UTA
25. Mark Jackson, PhD committee (chair Benito Chen), Mathematics, UTA
26. Iris Alvarado, PhD committee (chair Hristo Kojouharov), Mathematics, UTA
27. Ting Luo, PhD committee (chair Yue Liu), Mathematics, UTA
28. Hongguang Xi, PhD committee (chair Jianzhong Su), Mathematics, UTA
29. Junwei Sun, PhD committee (chair Yue Liu), Mathematics, UTA
30. Ivan Ojeda-Ruiz, PhD committee (chair Ren-Cang Li), Mathematics, UTA
31. Derek Tomlin, PhD committee (chair Michaela Vancliff), Mathematics, UTA
32. Daniel Wood, PhD committee (chair Hristo Kojouharov), Mathematics, UTA
33. Melinda Au, PhD committee (chair Ren-Cang Li), Mathematics, UTA
34. Rachel Traylor, PhD committee (chair Andrzej Korzeniowski), Mathematics, UTA
35. Nathan Steele, PhD committee (chair David Jorgensen), Mathematics, UTA
36. John Griffis, PhD committee (chair Dimitar Grantcharov), Mathematics, UTA
37. Andrew Cavaness, PhD committee (chair Dimitar Grantcharov), Mathematics, UTA
38. Wilber Ventura, PhD committee (chair Andrzej Korzeniowski), Mathematics, UTA
39. Ahmed Ali, PhD committee (chair Ren-Cang Li), Mathematics, UTA
40. Christopher Mitchell, PhD committee (chair Christopher Kribs), Mathematics, UTA
41. Denise Rangel, PhD committee (chair David Jorgensen), Mathematics, UTA
42. Allie Ray, PhD committee (chair Ruth Gornet), Mathematics, UTA
43. Yonghua Yan, PhD committee (chair Chaoqun Liu), Mathematics, UTA
44. Thomas Seaquist, PhD committee (chair Andrzej Korzeniowski), Mathematics, UTA
45. Ibrahim Diakite, PhD committee (chair Benito Chen), Mathematics, UTA
46. Alicia Machuca, PhD committee (chair Tuncay Aktosun), Mathematics, UTA
47. Juan Licea Salazar, PhD committee (chair Benito Chen), Mathematics, UTA
48. Aubrey Rhoden, PhD committee (chair Jianzhong Su), Mathematics, UTA
49. Weichao Wang, PhD committee (chair Ren-Cang Li), Mathematics, UTA
50. Byungsoo Moon, PhD committee (chair Yue Liu), Mathematics, UTA
51. Caixia Chen, PhD committee (chair Yue Liu), Mathematics, UTA
52. Jared Painter, PhD committee (chair David Jorgensen), Mathematics, UTA
53. Britnee Crawford, PhD committee (chair Christopher Kribs), Mathematics, UTA
54. Humberto Perez-Gonzales, PhD committee (chair Jianzhong Su), Mathematics, UTA
55. Natee Pantong, PhD committee (chair Jianzhong Su), Mathematics, UTA
56. Mehmet Ali Akinlar, PhD committee (chair Guojun Liao), Mathematics, UTA

57. Snehanshu Saha, PhD committee (chair Yue Liu), Mathematics, UTA
58. Meri Florence, PhD committee (chair David Jorgensen), Mathematics, UTA
59. Theresa Busse, PhD committee (chair Tuncay Aktosun), Mathematics, UTA
60. Paul Stern, PhD committee (chair David Jorgensen), Mathematics, UTA
  
61. Francis Mastrome, MS committee (chair Christopher Kribs), Mathematics, UTA
62. Peng Wan, MS committee, (chair Andrzej Korzeniowski), Mathematics, UTA
63. Mondal Hasan Zahid, MS committee (chair Christopher Kribs), Mathematics, UTA
64. Jonathan Johnson, MS committee (chair Barbara Shipman), Mathematics, UTA
65. Catherine Rogers, MS committee (chair Christopher Kribs), Mathematics, UTA
66. Mehmet Unlu, MS committee (chair Tuncay Aktosun), Mathematics, UTA
67. Rachel Moss, MS committee (chair Barbara Shipman), Mathematics, UTA
68. Alekzander Malcom, MS committee (chair Dimitar Grantcharov), Mathematics, UTA
69. Jennifer Anderson, MS committee (chair Stephen Pankavich), Mathematics, UTA
70. Britnee Crawford, MS committee (chair Christopher Kribs), Mathematics, UTA

## Teaching at UTA

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1. **Math 5392 - Mathematics of Medical Imaging (graduate), Instructor.** Class size – about 14 students (7 at UTA and 7 at UTSW). Cross-listed with a graduate course at UT Southwestern Medical School (UTSW) and webcasted online to UTSW campus.
2. **Math 5350 - Applied Mathematics I (graduate), Instructor.** Class size – about 10 students.
3. **Math 5327 - Functional Analysis I (graduate), Instructor.** Class size – about 10 students.
4. **Math 5328 - Functional Analysis II (graduate), Instructor.** Class size – about 10 students.
5. **Math 5322 - Complex Variables I (graduate), Instructor.** Class size – about 30 students.
6. **Math 5317 - Real Analysis (graduate), Instructor.** Class size – about 25 students.
7. **Math 5307 - Mathematical Analysis I (graduate), Instructor.** Class size – about 30 students.
8. **Math 5308 - Mathematical Analysis II (graduate), Instructor.** Class size – about 20 students.
9. **Math 5345 - Concepts and Techniques in Analysis (grad), Instructor.** Class size – about 10 students.
  
10. **Math 4394 - Undergrad Research Experiences (undergrad), Instructor.** Class size – about 5 students, Responsibilities: supervising undergraduate research projects in different programs, including UTA QEP (Quality Enhancement Plan). Course aimed at using active learning in undergraduate education. Partially supported by instructor's NSF and NHARP grants.
11. **Math 4324 - Introduction Partial Differential Equations, Instructor.** Class size – about 40 students.
12. **Math 4322 - Introduction to Complex Variables (undergrad), Instructor.** Class size – about 26 students.
13. **Math 3335 - Analysis I (undergrad), Instructor.** Class size – about 26 students.
14. **Math 3319 - Differential Equations and Linear Algebra (undergrad), Instructor.** Class size – about 60.
15. **Math 3318 - Ordinary Differential Equations (undergrad), Instructor.** Class size – about 26 students.
16. **Math 1426 - Calculus I (undergrad), Instructor.** Class size – about 65 students.

17. **Math 1316** - *Mathematics for Business Economics and Business Analysis (undergraduate)*, **Instructor**. Class size – about 25 students.
18. **Math 1315** – *College Algebra for Economics and Business (undergraduate)*, **Instructor**. Class size – about 80 students.

## Teaching outside of UTA

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19. *Calculus I (undergrad)*, American University of Armenia, **Instructor**. Class size – about 60 students.
20. *Business Mathematics (undergrad)*, Texas A&M University, **Instructor**. Class size – about 100 students.
21. *Numerical Analysis (undergrad)*, Texas A&M University, **Teaching assistant**. Class size – about 25.
22. *Calculus II (undergrad)*, Texas A&M University, **Teaching assistant**. Class size – about 35 students.
23. *Calculus I (undergrad)*, Obninsk Mathematical College (Russia), **Instructor**. Class size – 30 students.
24. *Calculus II (undergrad)*, Obninsk Mathematical College, **Instructor**. Class size – about 30 students.

## Professional Service to the Scientific Community

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1. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, December 2020
2. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, October 2019
3. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, October 2019
4. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, June 2019
5. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, March 2019
6. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, April 2018
7. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, March 2018
8. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, March 2017
9. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, January 2017
10. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, October 2016
11. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, November 2015
12. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, March 2011
13. Panelist for the *US National Science Foundation Grant Proposal Reviews*, Washington, DC, February 2009

14. Ad-hoc Reviewer for *US National Science Foundation Grant Proposal Reviews*, Washington, DC, November 2019
15. Ad-hoc Reviewer for *US National Science Foundation Grant Proposal Reviews*, Washington, DC, October 2018
16. Reviewer for Deutsche Forschungsgemeinschaft (German Research Foundation), October 2018
17. **Guest Editor** of a special issue of the journal **Inverse Problems** on “Generalized Radon transforms and applications in tomography”, 2017-2019.

18. Journal Reviewer for:

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|--|---|
| 1) <i>Analysis and Mathematical Physics</i>                  | 13) <i>Journal of Mathematical Imaging and Vision</i>         |
| 2) <i>Applied Mathematics Letters</i>                        | 14) <i>Journal of Modern Optics</i>                           |
| 3) <i>Applied Numerical Mathematics</i>                      | 15) <i>Journal of Physics A: Mathematical and Theoretical</i> |
| 4) <i>IEEE Transactions on Computational Imaging</i>         | 16) <i>Mathematical Methods in the Applied Sciences</i>       |
| 5) <i>International Journal of Biomedical Imaging</i>        | 17) <i>Measurement Science and Technology</i>                 |
| 6) <i>Inverse Problems</i>                                   | 18) <i>Optics and Lasers in Engineering</i>                   |
| 7) <i>Inverse Problems and Imaging</i>                       | 19) <i>Optics Express</i>                                     |
| 8) <i>Inverse Problems in Science and Engineering</i>        | 20) <i>Physics in Medicine and Biology</i>                    |
| 9) <i>Journal of Fourier Analysis and Applications</i>       | 21) <i>SIAM Journal on Applied Mathematics</i>                |
| 10) <i>Journal of Geophysics and Engineering</i>             | 22) <i>SIAM Journal on Imaging Science</i>                    |
| 11) <i>Journal of Inverse and Ill-Posed Problems</i>         | 23) <i>SIAM Journal on Mathematical Analysis</i>              |
| 12) <i>Journal of Mathematical Analysis and Applications</i> | 24) <i>SIAM Review</i>  |

19. Co-organizer of the conference on *Spectral Theory and Applications*, celebrating Peter Kuchment and his contributions to the field, Texas A&M University, College Station, Texas, October 13-15, 2023
20. Co-organizer of the special session on *Generalized Radon Transforms and Applications in Imaging*, “Modern Challenges in Imaging in the Footsteps of Allan Cormack,” Tufts University, Boston, MA, August 5-9, 2019.
21. Co-organizer of the special session on *Inverse Problems in Novel Imaging Modalities*, “Applied Inverse Problems Conference,” Université Grenoble-Alpes, Grenoble, France, July 8-12, 2019.
22. Co-organizer of the mini-symposium on *Analytic and Numerical Problems in Tomography*, 9-th International Conference on “Inverse Problems: Modeling and Simulation”, May 21-25, 2018, Malta
23. Co-organizer of the mini-symposium on *Cone/Compton Transforms and Their Applications*, conference on the “100 Years of the Radon transform”, The Radon Institute of Computational and Applied Mathematics. Linz, Austria, March 27-31, 2017
24. Co-organizer of the workshop on *Computational and Analytical Aspects of Image Reconstruction*, The Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence, July 13-17, 2015
25. Co-organizer of the *Inverse Problems and Spectral Theory Conference*, Dedicated to 65-th Birthday of Peter Kuchment, Texas A&M University, College Station, Texas, October 17-19, 2014
26. Co-organizer of the *2013 Texas Geometry and Topology Conference (TGTC) 49-th Meeting*, Arlington, Texas, Feb 08 – Feb 10, 2013



27. Co-organizer of the *2012 National Science Foundation CBMS Conference on Mathematical Methods of Computed Tomography*, Arlington, Texas, May 29 – June 2, 2012
28. Co-organizer of the *Special Session on Ultrasound and Photo-Acoustic Imaging*, Southern Biomedical Engineering Conference (SBEC) 2011, Arlington, Texas, April 29 – May 1, 2011
29. Co-organizer of the *Harmonic Analysis and Integral Geometry Workshop*, at Louisiana State University, Baton Rouge, Louisiana, January 2011
30. Co-organizer of the *AMS Special Session on Integral Geometry: Analysis and Applications*, Joint Mathematics Meeting, New Orleans, Louisiana, January 2011
31. Co-organizer of the *AMS Special Session on Inverse Problems: Analysis and Computations*, Joint Mathematics Meeting, San Francisco, California, January 2010
32. Co-organizer of the *2008 National Science Foundation CBMS Conference on Inverse Scattering for Radar Imaging*, Arlington, Texas, May 27-31 2008
33. Co-organizer of the *7-th AIMS International Conference on Dynamical Systems and Differential Equations*, Arlington, Texas, May 18-21 2008
  
34. Member of the *Mid-Cities Math Circle (MC)<sup>2</sup> Faculty*, Arlington, TX, 2008-present
35. Co-Director of the *UTA Calculus Bowl*, Arlington, TX, 2007-present
36. Faculty Member of the *National Alliance for Doctoral Studies in the Mathematical Sciences*, 2013-present

## Professional Service at UTA

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1. Member of the *Awards Committee*, Department of Mathematics, University of Texas at Arlington, 2022-2023
2. Member of the *Undergraduate Affairs Committee*, Fall 2019. Department of Mechanical and Aerospace Engineering, University of Texas at Arlington
3. Member of the *Faculty Recruitment Committee*, 2017-2018. Department of Mechanical and Aerospace Engineering, University of Texas at Arlington
4. Member of the *Faculty Recruitment Committee*, Department of Mathematics, University of Texas at Arlington, 2016-2017
5. Member of the *Committee on Faculty Professional Development*, College of Science, University of Texas at Arlington, 2016-2017
6. Member of the *Awards Committee*, Department of Mathematics, University of Texas at Arlington, 2015-2017
7. Faculty Advisor for UTA chapter of the *Pi Mu Epsilon Honor Society*, University of Texas at Arlington, 2015-present
8. Member of the *Center for Security Advances via Applied Nano-Technology (SAVANT)*, University of Texas at Arlington, 2013-present
9. Member of the *Advisory Board of the Interdisciplinary Program in Medical Physics*, Department of Physics and Astronomy, UTA, 2008-present
10. Chair of the *Colloquium Series*, 2013-2016, Department of Mathematics, University of Texas at Arlington
11. Chair of the *PhD Preliminary Exam Committee*, 2011-2016 (Member of the Committee 2007-2016) Department of Mathematics, University of Texas at Arlington

12. Member of the *Frontiers in Science Series Speaker Selection Committee*, College of Science, University of Texas at Arlington, 2014-2015
13. Member of the *Advisory Committee*, Department of Mathematics, University of Texas at Arlington, 2011-2015
14. Member of the *Faculty Recruitment Committee*, Department of Mathematics, University of Texas at Arlington, 2011-2015
15. Member of the *Graduate Affairs Committee*, Department of Mathematics, University of Texas at Arlington, 2007-2011
16. Member of the *College of Science Workload Committee*, College of Science, University of Texas at Arlington 2011
17. Member of the *University of Texas System Imaging Working Group* Preparing Recommendations for the *Cancer Prevention & Research Institute of Texas (CPRIT)*, 2008-2009

## Articles and Videos in the Media (hyperlinks)

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1. May 2023. [New book focuses on recent developments in mathematics of medical imaging](#)
2. Apr 2022. [UTA Math's Gaik Ambartsoumian and Theresa Jorgensen on Voices Podcast](#)
3. Feb 2017. [Ambartsoumian Leading NSF-funded Project on Math and Imaging Technology](#)
4. May 2015. [Teaching Assistants Reflect on Career Choices on the National Teacher Day](#)
5. Dec 2013. [Students of the American University of Armenia about Dr. Ambartsoumian](#)
6. Oct 2013. [Seminar and Interview of G. Ambartsoumian at the Russian-Armenian State University](#)
7. May 2013. [College of Science Presents 2012-13 Faculty Awards](#)
8. Apr 2013. [Sharper Image - On Dr. Ambartsoumian's Research in Maverick Science Magazine](#)

## Additional Information

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- Languages: fluent in English, Russian and Armenian
- US Citizen