

# Armen Vagharshakyan

Curriculum Vitae

## Contact information

- *phone*: (+374) 60 524 801
- *e-mail*: armen@instmath.sci.am
- *address*: Baghramyan Ave. 24/5, Room 24, Yerevan 0019, Armenia

## Employment

- Senior Researcher, *Institute of Mathematics, Armenian National Academy of Sciences* (2019-)
- Researcher, *Institute of Mathematics, Armenian National Academy of Sciences* (2017-2018)
- Postdoc, *University of Toronto* (2015-2017)
- Postdoctoral Research Associate, *Kent State University* (2013-2015)
- Tamarkin Assistant Professor, *Brown University* (2010-2013)

## Education

- PhD in Mathematics, *Georgia, Institute of Technology* (2010)
- Candidate of Sciences in “Mathematical Analysis”, *Yerevan State University* (2008)
- MSc in Mathematics, *Yerevan State University* (2006)
- BSc in Mathematics, *Yerevan State University* (2004)

## Scientific interests

Harmonic Analysis, Uniformity of Distributions

## Articles, preprints, reports

- A. Vagharshakyan, “*An Upper Bound for the Menchov-Rademacher Operator for Right Triangles*”, <https://arxiv.org/abs/2008.04554> (2020)
- A. Vagharshakyan, “*Lower Bounds for  $L_1$  Discrepancy*”, *Mathematika*, Vol. 59 (2013) , No. 2, pp. 365-379

- T. Anderson, A. Vagharshakyan, “*A Simple Proof of the sharp Weighted Estimates for Calderon-Zygmund Operators on Homogeneous Spaces*”, Journal of Geometric Analysis, Vol 24 (2014), No 3, pp. 1276–1297
- A. Vagharshakyan, “*Recovering singular integrals from Haar shifts*”, Proc. Amer. Math. Soc., Vol. 138 (2010), No. 12, pp. 4303-4309
- D. Bilyk, M. Lacey, I. Parissis, and A. Vagharshakyan, “*A three-dimensional signed small ball inequality*”, Dependence in probability, analysis and number theory, pp. 73-87, Kendrick Press, Heber City, UT, 2010
- D. Bilyk, M. Lacey, I. Parissis, and A. Vagharshakyan, “*Exponential squared integrability of the discrepancy function in two dimensions*”, Mathematika, Vol. 55 (2009), No. 1-2, pp. 1-27
- D. Bilyk, M. Lacey, and A. Vagharshakyan, “*On the small ball inequality in all dimensions*”, J. Funct. Anal., Vol. 254 (2008), No. 9, pp. 2470-2502
- D. Bilyk, M. Lacey, and A. Vagharshakyan, “*On the Signed Small Ball Inequality*”, Online J. Anal. Comb., No. 3 (2008), Art. 6, pp. 1-7
- A. Vagharshakyan, “*On Representation of Functions from the Space  $ReH_1$* ”, Reports of Academy of Sciences of Armenia , Vol. 105 (2005), No. 2
- A. Vagharshakyan, “*Representation of  $L_1(R)$  by functional series with absolutely convergent coefficients*”, Journal of Contemporary Mathematical Analysis, Vol. 39 (2004), No. 5, pp. 39-89

## Select talks

- “Lower Bounds for  $L_1$  Discrepancy,” Workshop on Real Analysis, Hausdorff Institute of Mathematics, Bonn, Germany (July 15, 2014)
- “Lower bounds for  $L_1$  norm of Discrepancy,” Joint Mathematics Meetings, San Diego Convention Center, San Diego, CA (January 10, 2013)
- “Recovering Singular Integrals from Haar Shifts,” Seminar on Analysis, PDE and Mathematical Physics, Michigan State University, East Lansing, Michigan (April 7, 2010)
- “Recovering Singular Integrals from Haar Shifts,” Workshop on Fourier and Harmonic Analysis, Wayne State University , Detroit, Michigan (November 15, 2009)
- “Discrepancy and the Small Ball Inequality,” Seminario de Analisis, Departamento de Matematicas, Universidad Autonoma de Madrid, Madrid, Spain (April 3, 2009)

## Select workshops participated

- “Directional Discrepancy: SQUARE meeting 2,” AIM, Palo Alto (May 15-19, 2012)
- “Summer/Fall School: Weighted estimates for singular integrals,” UCLA Lake Arrowhead (October 03 -October 08, 2010)
- “Thematic Program on New Trends in Harmonic Analysis,” Fields Institute, Toronto, Canada (January-June 2008)
- “Summer School: Analysis on Metric Spaces,” UCLA Lake Arrowhead, California (September 9-14, 2007)

## Grants, honors and awards

- Co-investigator of grant 18T-1A081 by the Science Committee of Armenia (2018-2020)
- AMS-Simons travel grant (2013-2015)
- “Top graduate student” of the School of Mathematics at Georgia, Institute of Technology (2007)
- Silver Medal in “International Scientific Olympiad on Mathematics for Undergraduate University Students”, Tehran, Iran (2004)
- Student of the year of the Faculty of Mathematics at Yerevan State University (2004).

## Select courses taught

- “Advanced Calculus”, Kent State University (Fall 2014)
- “Partial Differential Equations,” Brown University (Spring 2012)
- “Analysis: Functions of One Variable,” Brown University (Spring 2011)

## Organizational activities

- Scientific secretary at Institute of Mathematics, Armenian National Academy of Sciences (2019-)
- Technical redactor of the “Armenian Journal of Mathematics” (2019-2020)
- Official opponent of a PhD candidate M. Safaryan (2018)
- Member of the committee for the topics examination of graduate students T. Anderson and J. Lai (2012)
- Organizer of the “Informal Analysis Seminar” at the Mathematics Department, Brown University (2010-2012)

## Language proficiency

Armenian (native), Russian (free), English (free)

Last updated: August 12, 2020 •