Rafayel Hrayr Barkhudaryan

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University administration
Vice-rector for scientific affairs
University administration
Vice-rector for scientific affairs
Faculty of Mathematics and Mechanics
Chair of Theory of Functions and Differential Equations
Assistant

Education

Institution	Institute of Mathematics of NAS RA
Faculty	Faculty of Mathematics
Date	2004 - 2007
Degree name	PhD student

Institution	Yerevan State University
Faculty	Faculty of Mathematics
Date	2002 - 2004
Degree name	Masters

Institution	Yerevan State University
Faculty	Faculty of Mathematics
Date	1998 - 2002
Degree name	Bachelor

Scientific Rank/degree

Institution	Yerevan State University
Date	2007
Degree name	Candidate
Scientific Supervisor	Anry Nersessian
Research Topic	Convergence acceleration of expansions by eigenfunctions of some boundary value problems.

Language skills

Հայերեն English Русский

Work experience

Institution	Yerevan State University
Period of time	2019 till now
Rank/degree	Vice-rector for scientific affairs

Institution	Institute of Mathematics NAS RA
Period of time	2014 - 2019
Rank/degree	Director

Institution	Institute of Mathematics NAS RA
Period of time	2011 - 2014
Rank/degree	Deputy Director

Institution	Institute of Mathematics NAS RA
Period of time	2007 - 2011
Rank/degree	Scientific Secretary

Institution	Institute of Mathematics NAS RA
Period of time	2005 - 2007
Rank/degree	Junior researcher

Institution	Boomerang Software LLC
Period of time	2000 - 2005
Rank/degree	programmer

Participation in international conferences and seminars

07/02/2026 - 12/02/2026	Կատարի մաթեմատիկական հետազոտությունների ֆորում. «Մաթեմատիկական հորիզոններ» սիմպոզիում Carnegie Mellon University Qatar
01/02/2014 - 30/04/2014	Visiting Fellow of the Isaac Newton Institute for Mathematical Sciences, programm "Free Boundary Problems and Related Topics" University of Cambridge United Kingdom of Great Britain and Northern Ireland (the)
21/09/2013 - 27/09/2013	International Conference of Numerical Analysis and Applied Mathematics(ICNAAM 2013) Rhodes, Greece Greece
25/04/2016	International Conference "Modern Methods, Problems and Applications of Operator Theory and Harmonic Analysis VI" Rostov-on-Don, Russia

Russian Federation (the)

Membership

Institution	Board of trustees, CANDLE Synchrotron Research Institute
Period of time	2025 till now

Institution	Board of trustees, A. Alikhanyan national science laboratory (Yerevan Physics Institute)
Period of time	2023 till now

Institution	Scientic council of the Yerevan State University
Period of time	2019 till now

Institution	Scientic council of the Institute of Mathematics
Period of time	2007 till now

Institution	Editorial board of the Armenian Journal of Mathematics
Period of time	2008 till now

Institution	Armenian Mathematical Union
Period of time	2011 till now

Institution	Scientic council of the Faculty of Mathematics, Yerevan State University
Period of time	2015 till now

Institution	European Mathematical Society
Period of time	2018 till now

Institution	American Mathematical Society(Reviewer)
Period of time	2019 till now

Publications

Article

On Weyl Multipliers of Almost Everywhere Unconditional Convergence of Series With Respect to General Haar and Franklin Systems

Rafayel Barkhudaryan, Gegham Gevorkyan

Armenian Journal of Mathematics 2026 1 - 15

https://doi.org/10.52737/18291163-2026.18.2-1-15

Article

Convergence of physics-informed neural networks for fully nonlinear PDEs

Avetik Arakelyan, Rafayel Barkhudaryan

Journal of Computational and Applied Mathematics 2026 117740 - 117740

https://doi.org/10.1016/j.cam.2026.117740

Article

On an Exact Convergence of Quasi-Periodic Interpolations for the Polyharmonic–Neumann Eigenfunctions

Poghosyan Arnak, Poghosyan Lusine, Barkhudaryan Rafayel

Algorithms 2024 497

Article

System of variational inequalities with interconnected obstacles

R. Barkhudaryan, D.A. Gomes, M. Salehi, H. Shahgholian

Applicable Analysis 2022 605-628

Conference

System of variational inequalities with interconnected obstacles

Barkhudaryan R.H.

2022 58-59

https://www.mathnet.ru/php/conference.phtml?confid=2097&option_lang=eng

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Article

On the Convergence of the Quasi-Periodic Approximations on a Finite Interval

R. Barkhudaryan, A. Poghosyan, L. Poghosyan

Armenian Journal of Mathematics 2021 1-44

Article

On some quasi-periodic approximations

R. Barkhudaryan, L. Poghosyan, A. Poghosyan

Armenian Journal of Mathematics 2020 1–27

Article

Numerical treatment to a non-local parabolic free boundary problem arising in financial bubbles

A. Arakelyan, R. Barkhudaryan, H. Shahgholian, M. Salehi

Bulletin of the Iranian Mathematical Society 2019 59-73

Conference

On a non-local parabolic free boundary problem arising in a theory of financial bubbles

R. Barkhudaryan

2018 18-19

http://math.sci.am/conference/djrbashyan-100

Article

FINITE DIFFERENCE SCHEME FOR A GENERAL CLASS OF THE SPATIAL SEGREGATION OF REACTION-DIFFUSION SYSTEMS WITH TWO POPULATION DENSITIES

A. Arakelyan, R. Barkhudaryan, L. Poghosyan

Вестник Казанского государственного энергетического университета 2017 28-35

Article

Iterative scheme for an elliptic non-local free boundary problem
Barkhudaryan, R., Juráš, M., Salehi, M.

Applicable Analysis 2016 2794-2806

Article

A Numerical Approach for a General Class of the Spatial Segregation of Reaction-Diffusion Systems Arising in Population Dynamics
Avetik Arakelyan, Rafayel Barkhudaryan

Computers & Mathematics with Applications 2016 2823-2838

Article

Numerical Solution of the Two-Phase Obstacle Problem by Finite Difference Method
Avetik Arakelyan, Rafayel Barkhudaryan, Michael Poghosyan

Armenian Journal of Mathematics 2015 164–182

http://www.flib.sci.am/eng/journal/Math/

Article

Arshag Hajian: By the 85th Anniversary
V. Arzumanian, R. Barkhudaryan, S. Eigen, A. Nersessian

Armenian Journal of Mathematics 2015 80-84

Article

On the Gibbs phenomenon for expansions by eigenfunctions of the boundary problem for Dirac system

R. H. Barkhudaryan,

Journal of Contemporary Mathematical Analysis (Armenian Academy of Sciences) 2013 139-144

Article

Finite difference method for two-phase obstacle problem

Rafayel Barkhudaryan

AIP Conference Proceedings 2013 2249-2252

Article

An error estimate for the finite difference scheme for one-phase obstacle problem
A. Arakelyan, R. Barkhudaryan, M. Poghosyan

Journal of Contemporary Mathematical Analysis (Armenian Academy of Sciences) 2011 131 - 141

Article

Asymptotic behavior of Eckhoff's method for Fourier series convergence acceleration
A. Barkhudaryan, R. Barkhudaryan, A. Poghosyan

Analysis in Theory and Applications 2007 228-242

Article

Convergence acceleration of eigenfunction expansions of the one-dimensional Dirac system

R. Barkhudaryan

AIP Conference Proceedings 2007 86–89

Article

О сходимости одного квазиполиномиального приближения
Р. Г. Бархударян, А. В. Погосян

Reports of NAS RA 2007 13-19

Article

Convergence Acceleration of Decompozition by Eigenfunctions of a Model Boundary Value Problem with a Discontinuous Coefficient

A. B. Nersessian, R.H. Barkhudaryan

Reports of NAS RA 2006 5-12

Article

Ускоренная сходимость рядов Фурье

А. Нерсесян, А. Погосян, Р. Бархударян

Известия НАН РА. Математика (Journal of Contemporary Mathematical Analysis (Armenian Academy of Sciences))
2006 43-56

Article

Ускорение сходимости разложений по собственным функциям системы Дирака

Р. Г. Бархударян

Մաթեմատիկան բարձրագույն դպրոցում 2006 54-62
