Dmitrii B. Karp

curriculum vitae

- **PERSONAL INFORMATION**

  Date and place of birth: March 23, 1971; Vladivostok, USSR

  Citizenship**:** Israel, Russian Federation

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  Google Scholar: http://scholar.google.ru/citations?user=oIf4j-gAAAAJ&hl=en

- **GRADUATE EDUCATION**

  2000 - Ph.D. (Candidate of Mathematical and Physical Sciences) in mathematical analysis, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok, Russia

  Thesis title: Spaces with hypergeometric reproducing kernels and fractional Fourier type transforms (advisor: professor V.V.Katrakhov)

  1993 - M.S. in Applied Mathematics (with distinction), Far Eastern State Technical University, Vladivostok, Russia (thesis entitled "The fractional Hankel transform and its applications", advisor: professor S.M. Sitnik)

- **FIELDS OF SPECIALITY**

  Special functions (hypergeometric, Mellin-Barnes integrals and other), function theory (including completely monotonic, Pick, Stieltjes, Bernstein, generalized Nevalninna and similar classes), complex analysis, inequalities (log-concavity and related topics), total positivity, potential theory in the complex plane, integral transforms, reproducing kernel spaces, statistics.

- **APPOINTMENTS**

  August 2025, - present, Research Fellow, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria

  January, 2020 -present, Associate Professor, Holon Institute of Technology, Holon, Israel

  March 2019 - December 2019, Visiting Professor, Ton Duc Thang University, Ho Chi Minh city, Vietnam

  October 2003 - December 2019, Senior Research Fellow, Institute of Applied Mathematics, Far Eastern Branch of the Russian Academy of Sciences

  November 2003 - December 2019, Associate Professor (part time), School of Economics and Management, Far Eastern Federal University (formerly Pacific State University of Economics)

  January 2015 - December 2015, Visiting Professor, Universidad del Atlántico, Barranquilla, Colombia (on leave from Institute of Applied Mathematics)

  May 2001 - October 2003, Research Fellow, Institute of Applied Mathematics, Far Eastern Branch of the Russian Academy of Sciences

  July 1999 - November 2003, Lecturer, Pacific State University of Economics, Department of Mathematics and Modeling

  1996 - 1999, Financial Consultant, Ted Canfield & Associates

  1993 - 1996, PhD student, Far Eastern State Technical University

- **TEACHING EXPERIENCE**

  ✓ Calculus I (two-semester undergraduate course), Far Eastern Federal University, Fall 2017 and Spring 2018, in Russian)

  ✓ Calculus II (Fall semesters 2020-2024, Holon Institute of Technology, in Hebrew)

  ✓ Differential Equations (Fall Semester 2019, Ton Duc Thang University, in English; Spring semesters 2021-2025, Holon Institute of Technology, in Hebrew)

  ✓ Measure Theory (Fall Semester 2019, Ton Duc Thang University, in English)

  ✓ Introduction to Modern Analysis (Holon Institute of Technology, Spring semesters 2021-2024, in English)

- ✓ Econometrics (one semester graduate course, International Master Program delivered in English), Far Eastern Federal University (Fall, 2016 and 2017)

- ✓ Complex Variables (one-semester undergraduate course), Universidad del Atlántico, Barranquilla, Colombia (in Spanish, Spring 2015, Fall 2015), Holon Institute of Technology (in Hebrew), Fall semesters 2020-2024

- ✓ Analysis I (one-semester undergraduate course), Universidad del Atlántico, Barranquilla, Colombia (in Spanish, Spring 2015, Fall 2015)

- ✓ Time Series Analysis and Forecasting (two-semester undergraduate course), Far Eastern Federal University (before 2011 - Pacific State University of Economics), Vladivostok, Russia (2002 – 2014, in Russian), Holon Institute of Technology (one semester undergraduate course, 2024, in English)

- ✓ Econometrics (one semester undergraduate course), Far Eastern Federal University (before 2011 - Pacific State University of Economics), Vladivostok, Russia (2002 – 2014, in Russian)

- ✓ Introductory Multivariate Statistics (two semester undergraduate course), Far Eastern Federal University (before 2011 - Pacific State University of Economics), Vladivostok, Russia (2009 – 2014, in Russian)

- ✓ Modeling and Forecasting with Discrete Dynamical Systems (one semester graduate course), Far Eastern Federal University, Vladivostok, Russia (2012 -2013, in Russian)

- ✓ Introduction to Financial Mathematics (one semester undergraduate course), Pacific State University of Economics, Vladivostok, Russia (2003 – 2009, in Russian)

- ✓ Modeling using Neural Networks (one semester graduate course), Pacific State University of Economics, Vladivostok, Russia (2008, in Russian)

- ✓ Introductory cryptography (one semester undergraduate course), Pacific State University of Economics, Vladivostok, Russia (1999-2002, in Russian)

- **PROFESSIONAL ACTIVITIES**

  I. Lifetime member of the International Society for Analysis, Its Application and Computation (ISAAC, http://mathisaac.org/)

  II. Member of SIAM Activity Group on Orthogonal Polynomials and Special Functions, 2018-2019

III.   Associate editor of the Journal of Classical Analysis (http://jca.ele-math.com/editorial)

IV.   Associate Editor of the journal Fractional Calculus and Applied Analysis (https://link.springer.com/journal/13540/editorial-board) from 2024

V.   Associate Editor, Open Mathematics, de Gruyter Brill, from 2025

VI.   Served as a referee for over 40 top mathematical journals

VII.   Reviewer for Mathematical Reviews (MathSciNet) since 1994

- **GRANTS, AWARDS AND FELLOWSHIPS**

  2020 -2024, Cameya Bet Fellowship, Ministry of Absorption of the State of Israel

  2018 - DAAD (German Academic Exchange Service) Fellowship for University Professors and Scientists (two months visit to Technische Universität Berlin)

  2011 - 2014 - Principal Investigator, Research Project "Generalized Stieltjes functions, conformal mappings and hypergeometric functions" (grant of the Far Eastern Branch of the Russian Academy of Sciences)

  2012 - Principal Investigator, Research Project "Representations and inequalities for hypergeometric and related functions and adjacent problems in modeling", grant of the Ministry of Education of the Russian Federation

  2009 - 2011 - Principal Investigator, Research Project "Multi-point power-rational approximations for special functions and functions belonging to parametric classes" (grant of the Far Eastern Branch of the Russian Academy of Sciences)

  2006 - 2008 - Winner of the Young Scientist Fellowship, International Association for the Promotion of Cooperation with Scientists from the New Independent States of the Former Soviet Union (INTAS, a program of the European Union); Fellowship period of 5 months spent at Universitat Autònoma de Barcelona (Spain)

  2006-2008 - Principal Investigator, Research Project "Reduced conformal invariants and their applications in the theory of functions" (grant of the Far Eastern Branch of the Russian Academy of Sciences)

2005 - Principal Investigator, Research Project "Capacities of sets and condensers: estimates, asymptotic formulas, comparison theorems and their applications" (grant of the Far Eastern Branch of the Russian Academy of Sciences)

2004 - Principal Investigator, Research Project "Asymptotics of condenser capacities with approaching plates" (grant of the Far Eastern Branch of the Russian Academy of Sciences)

2002 - Winner, Young Teacher Award of the Potanin Foundation

1995 - Selected and named Soros Postgraduate Student by Open Society Institute

- **SHORT-TERM INTERNATIONAL VISITS**

  ✓ Institute of Mathematics and Informatics Bulgarian Academy of Sciences (Sofia, Bulgaria), 2024 (2 months), 2023 (2 months)

  ✓ Xian Jiao Tong – Liverpool University (Suzhou, China), 2023 (2 weeks), 2025 (1 week)

  ✓ Oberwolfach Research Institute for Mathematics (Oberwolfach, Germany), 2022 (1 week)

  ✓ Shanghai Jiao Tong University (China), 2013 (one week), 2014 (one week), 2016 (two weeks), 2023 (2 weeks), 2025 (1 week)

  ✓ Technische Universität Berlin (Germany), 2018 (2 months)

  ✓ Technische Universität Berlin (Germany), 2017 (3 weeks)

  ✓ Weierstrass Institute for Applied Analysis and Stochastics (Berlin, Germany) 2016 (2 months research visit)

  ✓ Universidad de Zaragoza (Spain), 2005(two weeks), 2006 (one week), 2009 (three weeks), 2012 (three weeks), 2014 (two weeks), 2016 (two weeks), 2018 (two weeks)

  ✓ American Institute of Mathematics (USA), 2011 (AIM workshop on stability, hyperbolicity, and zero localization of functions)

  ✓ Universitat Autònoma de Barcelona (Spain), 2006 (three months), 2008 (two months) (work under INTAS grant)

- **SELECTED CONFERENCE AND SEMINAR PRESENTATIONS**

- 11th International Conference on Levy processes, Sofia, Bulgaria, July 28-August 1, 2025

- Foundational Mathematics Seminar, Xian-Jiaotong - Liverpool University, Suzhou, China, July 9, 2025

- ILAS Meeting 2025, Mini-Symposium MS-09 on Total Positivity, Kaohsuing, Taiwan, June 23-27, 2025

- IMAG Conference on Orthogonal Polynomials, Special Functions and Applications – OPSFA17, Granada (Spain) June 24 – 28, 2024

- Complex Analysis and Operator Theory: International Workshop in honor of Daoud Bshouty, David Shoikhet and Simeon Reich, Holon Institute of Technology, Holon, Israel, May 27-28, 2024

- Joint Seminar of the Analysis, Geometry and Topology Department, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria, November 7, 2023

- Research Seminar, Department of Mathematics, Mediterranean University, Antalya, Turkey, October 16, 2023

- Foundational Mathematics Research Seminar, Xian Jiao Tong – Liverpool University Suzhou, China, August 9, 2023

- International Conference "Mathematics Days in Sofia", Workshop Hausdorff Geometry of Polynomials, Sofia, Bulgaria, July 10-14, 2023

- International Mathematical Conference: Analysis, Approximation and Applications, Vrnjacka Banja, Serbia, June 21-24, 2023

- 16th International Symposium on Orthogonal Polynomials, Special Functions and Applications, June 13-17, 2022, CRM, Montreal, Canada (Online)

- The Laguerre-Pólya class and Combinatorics, March 13-19, 2022, Workshop at the Oberwolfach Institute of Mathematics, Germany

- Computational Methods and Function Theory, January 10-14,2022, Valparaiso, Chile (Virtual Conference)

- 13th International ISAAC Congress, August 2021, Ghent, Belgium

- ✓ International Conference on Special Functions and Applications, 21-23 December 2020, Babu Baranasi Das University, Lucknow, India

- ✓ Geometric Function Theory Seminar, Holon Institute of Technology, Israel, talk on November 11, 2020

- ✓ CAOPA international online seminar series (organized by V.Lysov (Keldysh Institute of Applied Mathematics, Moscow), M.Tyaglov (Shanghai Jiao Tong University, Shanghai), A. Dyachenko (University College of London)), Talk on August 3, 2020

- ✓ International Webinar on Special Functions and Discrete Mathematics, 2-5 August 2020, University of Kerala, India

- ✓ International Conference Generalized functions 2018, 27 - 31 August 2018, University of Novi Sad, Novi Sad, Serbia

- ✓ New Developments in Complex Analysis and Function Theory, 2-6 July 2018, University of Crete, Heraklion, Greece

- ✓ Computational Methods and Function Theory, July 10-15, 2017, Maria Curie Skłodowksa University, Lublin, Poland (Invited session talk)

- ✓ International Conference on Special Functions: Theory, Computation and Applications, June 5-9, 2017, City University of Hong Kong, Hong Kong (China)

- ✓ International Conference "Modern Methods, Problems and Applications of Operator Theory and Harmonic Analysis", April 23-28, 2017, Southern Federal University, Rostov-on-Don, Russia

- ✓ International Conference on Mathematical Analysis and its Applications, November 28-December 2, 2016, Roorkee, India (Invited session talk)

- ✓ VII Jaén Conference on Approximation Theory, July 3-8, 2016, Úbeda, Jaén, Spain

- ✓ Conference on Harmonic Analysis and Approximation Theory, June 6-10, 2016, Centre de Recerca Matemática, Barcelona, Spain

- ✓ 10th International ISAAC Congress, August 3-8, 2015, Macau, China

- ✓ Foundations of Computational Mathematics 2014, Montevideo, Uruguay, December 11-20, 2014 (Invited Workshop Speaker)

- ✓ International Conference on Applied Mathematics in honor of Professor Roderick C.S.Wong's 70th birthday, City University of Hong Kong, 1-5 December, 2014

- International Conference on Orthogonal Polynomials, Integrable Systems and Their Applications on the occasion of Professor Mourad Ismail's 70th Birthday, October 2014, Shanghai, China (Invited Speaker)

- 22nd International Conference on Finite or Infinite Dimensional Complex Analysis and Applications, August 2014, Gyoengju, Korea (Invited Speaker)

- Workshop on Special Functions and their Applications, August 2013, Copenhagen, Denmark

- Computational Methods and Function Theory (CMFT 2013), June 2013, Shantou, China

- International Conference on Approximation Theory and Applications, May 2013, Hong Kong

- International Symposium on Orthogonal Polynomials and Special Functions - a Complex Analytic Perspective, June 2012, Copenhagen, Denmark

- International Conference Computational and Mathematical Methods in Science and Engineering, July 2012, La Manga, Murcia, Spain

- 11th International Symposium on Orthogonal Polynomials, Special Functions and Applications, September 2011, Madrid, Spain

- 8th International ISAAC Congress, August 2011, Moscow, Russia

- International conference on asymptotics and special functions, June 2011, Hong Kong

- International Conference on Special Functions in the 21st Century: Theory and Applications (SF21), April 2011, Washington, DC, USA

- 18th International Conference on Finite and Infinite Dimensional Complex Analysis and Applications, August 2010, University of Macau

- International Conference "Modern Problems in Analysis and Geometry", September 2009, Novosibirsk, Russia

- 7th International ISAAC Congress, July 2009, London, Great Britain

- Computational Methods and Function Theory (CMFT 2009), June 2009, Ankara, Turkey

- 16th International Conference on Finite or Infinite Dimensional Complex Analysis and Applications, July 2008, Gyoengju, Korea

- Differential Equations, Function Spaces and Approximation Theory - Sobolev 100th Anniversary Conference, October 2008, Novosibirsk, Russia

- ✓ 15th International Conference on Finite and Infinite Dimensional Complex Analysis and Applications, August 2007, Osaka, Japan

- ✓ Special Functions: Asymptotic Analysis and Computation, A Conference in honor of Nico Temme's 65th birthday, July 2005, Santander, Spain

- ✓ 5th International Conference of Society of Special Functions and Applications, February 2004, Lucknow, India

- ✓ 4th International ISAAC Congress, August 2003, Toronto, Canada

- **SKILLS**

  - ✓ Languages: native Russian speaker, fluent in English (IELTS 8), Spanish, and Hebrew, working knowledge of German, beginner level Bulgarian

  - ✓ Experience with Mathematica, Maple, Matlab, Python, R and Visual Basic for MS Excel, including certain programming skills

  - ✓ Typesetting in LaTeX and AMSTeX, basic web design