ROMAN BESSONOV

Saint-Petersburg State University and PDMI RAS
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PERSONAL	Full name: Bessonov, Roman Viktorovich Gender: Male Birth: October, 1987, Uglich, Russia Citizenship: Russian Federation
RESEARCH INTERESTS	Complex analysis, Operator theory, Spectral theory
EMPLOYMENT	Associate Professor, St.Petersburg State University, Russia (01.09.2018 – present) Research fellow, St.Petersburg Department of the Steklov Institute of Mathematics, Russia (01.10.2014 – present) Research Fellow at Chebyshev Laboratory, St.Petersburg State University, Russia (01.10.2014 – 31.08.2018) Postdoctoral Fellow at the School of Mathematical Sciences, Tel Aviv University, Israel (01.10.2013 – 01.10.2014) Research Assistant, St.Petersburg Department of the Steklov Institute of Mathematics, Russia (01.10.2012 – 01.10.2013)
EDUCATION	2009–2012 Saint-Petersburg Department of V. A. Steklov Institute of Mathematics (Ph.D., Advisor: V. V. Kapustin) 2004–2009 Saint-Petersburg State University, Mathematics and Mechanics Faculty (Specialist degree, Advisor: V. P. Havin)

AWARDS, PERSONAL GRANTS	Laureate of Scientific competition 2019 of St.Petersburg Department of Steklov Mathematical Institute RAS, see http://www.mathnet.ru/php/seminars.phtml?&presentid=26379 &option_lang=eng
	Mechnikov Grant by French Government: visiting fellowship at Aix Marseille University (April, 2016). http://www.ambafrance-ru.org/Bourses-Metchnikov-sejours-scientifiques
	Research Position in St.Petersburg University for three years (2016-2018) under the support of the Grant No 16-31-60053 by the Russian Foundation for Basic Research
	JSC "GazpromNeft" fellowship for academic excellence (2014). Among three top postdoctoral researchers in Mathematics from St. Petersburg. http://hm.gazprom-neft.ru/press/565/
	16th A. Moebius Russian Mathematical Contest, second prize. Among three top Ph.D. students in all areas of mathematics nationwide (2012). www.moebiuscontest.ru/contest-2012-en.html
	Fellowship in honour of V. A. Rokhlin for young scientists from Saint-Petersburg by Euler Foundation. Among top three Ph.D. students from St. Petersburg (2010, 2011). www.pdmi.ras.ru/ru/rokhlin_grant/
	Fellowship "Best Ph.D. students of the Russian Academy of Sciences" by Russian Science Support Foundation (2010). www.science-support.ru/eng/index-eng.html
OTHER GRANTS	Grant No 19-11-00058 by the Russian Science Foundation (with Yu.Belov, 2019–2021) https://www.rscf.ru/enprjcard_int?19-11-00058
	Grants No 11-01-00584, No 08-01-00723, No 12-01-31492, No 14-01-00748 by the Russian Foundation for Basic Research (with V. Vasyunin, V. Kapustin, E. Doubtsov, D. Chelkak, M. Gamal, A. Baranov, Yu. Belov, 2010-2015). http://www.rfbr.ru/rffi/eng
	Grant MD-5758.2015.1, Russian President Grants (with A. Baranov and Yu. Belov, 2015-2016). https://grants.extech.ru

Visits
Lund University, Sweden
November 4 till November 11, 2018

Universities of Marseille, Lille, and Bordeaux, France
April 12 till May 10, 2016

Norwegian University of Science and Technology, Norway
November 6 till November 12, 2015

Kings College London, UK
February 1 till February 26, 2015

Tel Aviv University, Israel
June 9 till June 14, 2013

Texas A&M University, USA
February 15 till February 24, 2012

California Institute of Technology, USA
January 15 till February 15, 2012

Royal Institute of Technology, Sweden
September 20 till October 4, 2011

Conferences and Talks
Conference "Spaces of Analytic Functions: Approximation, Interpolation, Sampling", Barcelona, Spain, November 2019. Invited talk "Zero sets, entropy, and pointwise asymptotics of orthogonal polynomials"

The 15th International Symposium on Orthogonal Polynomials, Special Functions and Applications (OPSFA), Hagenberg, Austria, July 2019. Invited talk "Szego condition and scattering for Dirac operators"

Conference "Operators, Functions, and Systems of Mathematical Physics", Baku, Azerbaijan, May 2018. Talk: "A spectral Szego theorem on the real line"

Conference "10th St. Petersburg Conference in Spectral Theory dedicated to the memory of M. Sh. Birman", St.Petersburg, Russia, June 2018. Invited talk 11Szego condition and scattering for one-dimensional Dirac operators".

Conference "Complex Analysis and Related Topics 2018", St.Petersburg, Russia, April 2018. Invited talk "A spectral Szego theorem on the real line".

Colloquium of Mathematical Department of Lund University, Lund, Sweden, November 2018. Talk: "Szego condition and scattering for Dirac operators"

Conferences and Talks   Technische Universitat Wien, Vienna, Austria, December 2017. Talk: "A spectral Szego theorem on the real line".

Analysis Seminar at Maxwell Institute for Mathematical Sciences, Edinburgh, UK, November 2017. Talk: "A spectral Szego theorem".

Mini-conference "Hankel operators and related topics", Kings College London, UK, November 2017. Invited talk "A spectral Szego theorem".

Workshop "Hilbert spaces of entire functions and their applications", Bedlewo, Poland, April 1st - June 30th, 2017. Invited talk "Canonical Hamiltonian systems arising from weighted Paley Wiener spaces".

Conference "Harmonic Analysis, Complex Analysis, Spectral Theory and all that" in honour of A. Volberg, Bedlewo, Poland, August 2016. Talk: "Krein strings via truncated Toeplitz operators".

International Workshop on Operator Theory and Applications (IWOTA), Washington University in St.Louis, USA, July 2016. Invited talk on Section "Operator theory, singular integral equations, and PDEs". Title: "Muckenhoupt Hamiltonians, triangular factorization, and Krein orthogonal entire functions".

Conference in honour of Jean-Pierre Kahane, Orsay and Paris, France, July 2016.

Analysis Seminars at Universities of Marseille, Lille, and Bordeaux, France, April-May 2016. Talk: "Sampling measures, Muckenhoupt Hamiltonians, and triangular factorization".

Institut Mittag-Leffler Program "Completeness problems, Carleson measures and spaces of analytic functions", Djursholm, Sweden, June 2015. Talk: "Othogonal entire functions and canonical Hamiltonian systems of order two".

Analysis Seminar at Leeds University, UK, February 2015.
Talk: "Recent results on truncated Toeplitz operators".

Analysis Seminar at Newcastle University, UK, February 2015.
Talk: "An easy proof of the boundedness criterion for Wiener-Hopf operators on a finite interval".

Conference "Function Spaces and Harmonic Analysis", CIRM, Marseille, France, October 2014. Talk: "Atomic decomposition of coinvariant subspaces of H^1".

Conference "Complex and Harmonic Analysis", Holon Institute of Technology, Holon, Israel, June 2014. Talk: "Analytic continuation of regular atomic Hardy spaces".

Analysis Seminar at Bar Ilan University, Israel, March 2014.
Talk: "Operator norms of finite Hankel matrices".

Analysis Seminar at Tel Aviv University, Israel, March 2014.
Talk: "Fefferman's duality theorem for polynomials".

CONFERENCES AND TALKS	Conference "Hilbert Function Spaces", Palazzo Feltrinelli, Gargnano, Italy, May, 2013.
	Summer Saint-Petersburg Meetings in Mathematical Analysis, Euler Institute, St.Petersburg, Russia, 2010, 2011, 2012, 2013, 2014.
	Recent Trends in Analysis, University Bordeaux 1, Bordeaux, France, September 2011, Talk: "Cauchy-type integrals with respect to singular measures".
	Workshop in Operator Theory and Complex Analysis, Institute Camille Jordan, Lyon, France, November 2010, Talk: "Bounded symbols of truncated Toeplitz operators".
	Seventh Advanced Course in Operator Theory and Complex Analysis, University of Seville, El Puerto de Santa Maria, Spain, June 2010, Talk: "Bounded symbols of truncated Toeplitz operators".
	Advanced Course in Hilbert spaces of entire functions, Centre de Recerca Matemàtica, Barcelona, Spain, June 2011.
TEACHING	Calculus 1,2,3,4 for Bachelor students of St.Petersburg State University, Department of Mathematics and Computer Science, lectures (2018 – present)
	Functional Analysis 1,2 for Bachelor students of St.Petersburg State University, Department of Mathematics and Computer Science, lectures (2018, 2019)
	Calculus 1,2,3,4,5 for Bachelor students of St.Petersburg State University, Department of Mathematics and Computer Science, seminars (2017 – 2019)
COURSES GIVEN	Intensive advanced mini-course "Truncated Hankel and Toeplitz Operators", four lectures, London Taught Course Centre of London Mathematical Society, 19-20 Feburary, 2015.
SERVICE	Deputy dean of Department of Mathematics and Computer Science, St.Petersburg State University. https://math-cs.spbu.ru
	Research coordinator of Euler International Mathematical Institute. See https://eimi.ru/

Service   Organizer of the seminar "Spectral theory and related topics". https://eimi.ru/seminar-in-spectral-theory-and-related-topics/

Co-organizer of "Summer Saint-Petersburg Meetings in Mathematical Analysis", 2010-2016. http://gauss40.pdmi.ras.ru/ma24/

Organizer of Analysis Seminar for Young Scientists at Chebyshev Laboratory, Saint-Petersburg State University, 2012, 2014-2016.

Co-organizer of Saint-Petersburg Helsinki Math Colloquium, 5-7 May, 2015. https://wiki.helsinki.fi/display/mathphys/SPbHelsinki

PUBLICATIONS

[1] Bessonov, R.; Denisov, S. A spectral Szeg theorem on the real line. *Adv. Math.* 359 (2020)

[2] Bessonov, R. V. Wiener-Hopf operators admit triangular factorization. *J. Operator Theory* 82 (2019), no. 1, 237–249.

[3] Bessonov, R. V. On recurrence coefficients of Steklov measures. *Collect. Math.* 69 (2018), no. 2, 237–248.

[4] Bessonov, R. V. Schatten properties of Toeplitz operators on the Paley-Wiener space. *Ann. Inst. Fourier* (Grenoble) 68 (2018), no. 1, 195–215.

[5] Bessonov, R. V. Sampling measures, Muckenhoupt Hamiltonians, and triangular factorization. Accepted for publication in *Int. Math. Res. Not. IMRN* 2018, no. 12, 3744–3768.

[6] Bessonov, Roman; Romanov, Roman. An inverse problem for weighted Paley-Wiener spaces. *Inverse Problems* 32 (2016), no. 11

[7] Bessonov, R. V.; Kapustin, V. V. Averaged wave operators and complex-symmetric operators. *Complex Anal. Oper. Theory* 10, (2015), no 6, 1213–1226.

[8] Bessonov, R. V. Fredholmness and compactness of truncated Toeplitz and Hankel operators. *Int. Eq. Oper. Th.* 82 (2015), no. 4, 451–467.

[9] Bessonov, R. V. Duality theorems for coinvariant subspaces of H^1. *Adv. Math.* 271 (2015), 62–90.

[10] Bessonov, R. V. Truncated Toeplitz operators of finite rank. *Proc. Amer. Math. Soc.* 142 (2014), no. 4, 1301–1313.

[11] Bessonov, R. V. Analytic approximation in L^p and coinvariant subspaces of the Hardy space. *J. Approx. Theory* 174 (2013), 113–120.

[12] Bessonov, R. V. Past and future wave operators on the singular spectrum. *J. Math. Sci. (N. Y.)* 182 (2012), no. 5, 587–594

[13] Baranov, Anton; Bessonov, Roman; Kapustin, Vladimir. Symbols of truncated Toeplitz operators. *J. Funct. Anal.* 261 (2011), no. 12, 3437–3456.

[14] Bessonov, Roman V.; Bracic, Janko; Zajac, Michal. Non-hyperreflexive reflexive spaces of operators. *Studia Math.* 202 (2011), no. 1, 65–80.