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## CURRICULUM VITAE

DAMIR KINZEBULATOV

E-mail: damir.kinzebulatov@gmail.com

<http://www.math.toronto.edu/dkinz>

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### Academic Degrees

- **Ph.D**, University of Toronto  
*Mathematics*, 2012, under supervision of Pierre Milman.
- **M.Sc**, University of Calgary  
*Mathematics*, 2006
- **B.Sc**, Izhevsk State Technical University (Russia)  
*Mathematics with Computer Science*, 2004

### Research

1. (with L. Shartser) “**Unique continuation for Schrödinger operators. Towards an optimal result**”, *J. Funct. Anal.*, 258 (2010), p. 2662–2681, where we prove the property of unique continuation with potentials in a class for which the self-adjoint Schrödinger operator is well defined in the sense of form-sum (with application to the problem of absence of positive eigenvalues).
2. (with A. Brudnyi) “**Algebras of fibrewise bounded holomorphic functions on coverings of complex manifolds. Cartan theorems A and B**”, *arXiv:1110.5947* (2011), 61 p  
and
3. (with A. Brudnyi) “**Holomorphic almost periodic functions on coverings of complex manifolds**”, *New York J. Math.*, 17a (2011), p. 267-301, where we obtain analogues of Cartan theorems A and B for coherent sheaves on the maximal ideal spaces of subalgebras of holomorphic functions on coverings of complex manifolds (e.g. Bohr’s holomorphic almost periodic functions, holomorphic functions having limit at ‘infinity’), and subsequently derive the basic elements of complex function theory within these subalgebras.
4. “**A note on Gagliardo-Nirenberg type inequalities on analytic sets**”, *C. R. Acad. Sci. Canada*, 30 (2009), p. 97-105, where we study an invariant of singularities of analytic sets arising in a Gagliardo-Nirenberg type inequality relating the norms of smooth functions on these sets.

5. (with A. Brudnyi) “**Holomorphic semi-almost periodic functions**”, *Integr. Equ. Operat. Theory*, 66 (2010), p. 293-325

and

6. (with A. Brudnyi) ”**On algebras of holomorphic functions with semi-almost periodic boundary values**”, *C. R. Math. Rep. Acad. Sci. Canada*, 32 (2010), p. 1-12.

and

7. (with A. Brudnyi) “**On uniform subalgebras of  $L^\infty$  on the unit circle generated by almost periodic function**”, *St. Petersburg Math. J.*, 19 (2008). p. 495-518, where we derive the basic elements of complex function theory on the maximal ideal space of the subalgebra of bounded holomorphic functions on the unit disk whose moduli can have only first-kind boundary discontinuities (approximation property, projective freeness, corona etc).

### Earlier research (B. Sc and M. Sc)

8. “**Systems with distributions and viability theorem**”, *J. Math. Anal. Appl.*, 331 (2007), p. 1046-1067

and

9. (with V. Derr) “**Dynamical generalized functions and the multiplication problem**”, *Russian Math.*, 51 (2007), p. 32-43, where we introduce the space of distributions for which the multiplication by first-kind discontinuous functions is well defined, and use it to study the qualitative properties of differential equations arising in singular optimal control.

10. (with E. Braverman) “**On linear perturbations of the Ricker model**”, *Math. Biosci.*, 202 (2006), p. 323-339, where we study some models arising in population dynamics

## Awards

1. Ontario Graduate Scholarship (2008-2012).
2. University of Toronto Connaught Scholarship (2007-2011).
3. Fellowship of the President of Russian Federation (2003–2004).

## Conference and Seminar Talks

1. Geometric Analysis Seminar at Purdue University (West Lafayette, USA, November 2011).
2. Analysis Seminar at the University of Western Ontario (London, November 2011).
3. Colloquium talk ”The problem of interpolation in complex analysis” (Calgary, October 2011).

4. Conference on Several Complex Variables on the occasion of Professor Józef Siciak's 80th birthday (Kraków, July 2011).
5. Recent Advances in Function-related Operator Theory (Puerto-Rico, March 2010).
6. CMS Winter 2009 meeting (Windsor, December 2009).
7. Analysis Seminar at the University of Western Ontario (London, November 2009).
8. Colloquium talk "Geometry of almost periodic analytic sets" (Calgary, October 2009).
9. Northwest Functional Analysis Seminar (Banff, October 2009).
10. Analysis and PDEs Seminar (Toronto, February 2009).
11. Colloquium talk "Uniqueness of continuation and absence of positive eigenvalues for self-adjoint Schrödinger operators" (Calgary, November 2008).
12. CMS Winter 2007 meeting (London, December 2007)
13. 15th Summer St. Petersburg Meeting in Mathematical Analysis (Saint-Petersburg, July 2006)
14. CMS Summer 2006 meeting (Calgary, June 2006)
15. Topology and Non-Commutative Geometry Seminar (Calgary, June 2006).
16. The 26-th Midwest-Pacific Differential Equations Conference (Edmonton, October 2005)
17. Topology and Non-Commutative Geometry Seminar (Calgary, September 2004).
18. The 26-th Conference of Young Researchers of the Faculty of Mechanics and Mathematics of Moscow State University (Moscow, April 2004)
19. Functional-Differential Equations and Their Applications (Izhevsk, April 2002)

## Teaching Experience

1. Instructor for Calculus I for Life Sciences (Summer 2011, University of Toronto)
2. Instructor for Calculus II for Life Sciences (Winter 2010, University of Toronto)
3. TA for Calculus on Manifolds, Complex Variables, Advanced Ordinary Differential Equations, Ordinary Differential Equations for Engineers, (Fall 2007 – Fall 2012, University of Toronto)
4. TA for Calculus, Linear Algebra, Ordinary Differential Equations for Engineers (Fall 2004 – Spring 2006, University of Calgary)

5. I took course “Teaching large classes”, University of Toronto, that helps to prepare the student for organizing a course.

## **Other Professional Activities**

1. Participant of CIME Summer School on Pluripotential Theory (Italy, 2011)
2. Participant of PIMS Workshop “Analysis and Boundary Value Problems on Real and Complex Domains” (Banff, 2010)
3. Participant of PIMS Graduate Industrial Mathematical Modeling Camp/ Industrial Problem Solving Workshop (Calgary, June 2009)
4. Participant of CIME Summer School on Nonlinear Optimization (Italy, July 2007)
5. Participant of PIMS Graduate Industrial Mathematical Modeling Camp/ Industrial Problem Solving Workshop (Vancouver, June 2006)