

Curriculum Vitae

Vladyslav Yaskin

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Personal

Citizenship: Ukraine

Languages: English, Russian, Ukrainian

Research interests

- Convex Geometry
- Geometric Functional Analysis
- Geometric Tomography
- Applications of Harmonic Analysis to Convex Geometry

Education

May 2006: Ph.D. in Mathematics, University of Missouri-Columbia, USA

Advisor: Professor Alexander Koldobsky

June 1997: M.S. in Mathematics (Diploma with Honors), Kharkov State University, Ukraine

Advisor: Professor Yu. A. Aminov

Employment

July 2008 - present: Assistant Professor, Department of Math. & Stat. Sciences
University of Alberta, Edmonton AB, Canada

August 2006 - May 2008: Visiting Assistant Professor, Department of Mathematics
University of Oklahoma, Norman OK, USA

May 2007 - August 2007: Postdoctoral Researcher, Lab. of Analysis and Applied Math.
Université de Marne-la-Vallée (Paris-Est), France

August 2001 - May 2006: Teaching Assistant, Department of Mathematics
University of Missouri, Columbia MO, USA

January 2000 - January 2001 Teaching Assistant, Department of Mathematics
Kharkov State University, Ukraine

Grants and Awards

2009: NSERC grant

2008: University of Alberta start-up grant

2007: European Network PHD, FP6 Marie Curie Actions, RTN, Contract MCRN-511953

2007: MU Distinguished Dissertation Award (University of Missouri-Columbia)

2003: Mathematics Distinguished Teaching Award (Department of Mathematics,
University of Missouri-Columbia)

Publications

- **Book**

A. Koldobsky, V. Yaskin, *The Interface between Convex Geometry and Harmonic Analysis*, CBMS Regional Conference Series, 108, American Mathematical Society, Providence RI, 2008, 107 pp.

- **Papers**

- (1) J. Kim, V. Yaskin and A. Zvavitch, *The geometry of p -convex intersection bodies*, preprint.
- (2) V. Yaskin, *On perimeters of sections of convex polytopes*, J. Math. Anal. Appl. **371**, no. 2 (2010), 447-453.
- (3) V. Yaskin, *Unique determination of convex polytopes by non-central sections*, Math. Ann., to appear.
- (4) P. Goodey, V. Yaskin, M. Yaskina, *A Fourier transform approach to Christoffel's problem*, Trans. Amer. Math. Soc., to appear.
- (5) P. Goodey, V. Yaskin, M. Yaskina, *Fourier transforms and the Funk-Hecke theorem in convex geometry*, J. London Math. Soc. (2) **80** (2009) 388-404.
- (6) V. Yaskin, *On strict inclusions in hierarchies of convex bodies*, Proc. Amer. Math. Soc., **136** (2008), 3281-3291.
- (7) V. Yaskin, *Modified Shephard's problem on projections of convex bodies*, Israel J. Math. **168** (2008), 221-238
- (8) A. Koldobsky, A. Pajor and V. Yaskin, *Inequalities of the Kahane-Khinchin type and sections of L_p -balls*, Studia Math., **184** (2008), 217-231.
- (9) N. J. Kalton, A. Koldobsky, V. Yaskin and M. Yaskina, *The geometry of L_0* , Canadian J. Math. **59** No. 5 (2007), 1029-1049.
- (10) V. Yaskin, *A solution to the lower dimensional Busemann-Petty problem in the hyperbolic space*, J. Geom. Anal., **16** No. 4 (2006), 735-745.
- (11) V. Yaskin and M. Yaskina, *Centroid bodies and comparison of volumes*, Indiana University Math. J., **55** No. 3 (2006), 1175-1194.
- (12) V. Yaskin, *The Busemann-Petty problem in hyperbolic and spherical spaces*, Advances in Math., **203** (2006), 537-553.
- (13) A. Koldobsky, V. Yaskin and M. Yaskina, *Modified Busemann-Petty problem on sections on convex bodies*, Israel J. Math., **154** (2006), 191-208.
- (14) V. Yaskin, *Totally geodesic submanifolds of surfaces with the revolution group $SO(2) \times SO(2)$* , Kharkov University Vestnik, **475**, (2000), 282-295. (Russian)
- (15) V. Yaskin, *Totally geodesic submanifolds of hypersurfaces of revolution in the Euclidean space*, Mat. Fiz. Anal. Geom., **6** (1999), No 1/2, 182-188. (Russian)

Conferences organized

- Workshop on Mahler's conjecture and duality in convex geometry, American Institute of Mathematics, Palo Alto, CA, August 9 - 13, 2010.

Talks at conferences and seminars

- Workshop on Asymptotic Geometric Analysis and Convexity, Fields Institute, Toronto, ON, September 13 - 17, 2010.
- Conference on Perspectives in High Dimensions, Case Western Reserve University, Cleveland, OH, August 2 - 6, 2010.
- International conference on Asymptotic Geometric Analysis, Euler International Mathematical Institute, St. Petersburg (Russia), June 30 - July 4, 2010.
- Workshop on Convex and Stochastic Geometry, Bad Herrenalb (Germany), May 30 - June 4, 2010.
- Workshop on Volume Inequalities, BIRS, Banff, AB, March 28 - April 2, 2010.
- Joint meeting of KMS and AMS, Seoul (Korea), December 16 - 20, 2009.
- Workshop on Convex Geometry and its Applications, Oberwolfach (Germany), November 29 - December 4, 2009.
- BIRS Northwest Functional Analysis Seminar, Banff, AB, October 16 - 18, 2009.
- International conference "Geometry in large, Topology and Applications" dedicated to the 90-th birthday of A. V. Pogorelov, Kharkov (Ukraine), June 22 - 27, 2009.
- Workshop on Affine Convex Geometric Analysis, BIRS, Banff, AB, January 11 - 16, 2009.
- AMS Sectional Meeting, Special Session on Convex and Discrete Geometry and Asymptotic Analysis, Vancouver, BC, October 4 - 5, 2008.
- Fourth annual conference of the EU network "Phenomena in High Dimensions", Seville (Spain), June 23-27, 2008.
- Colloquium, Polytechnic University of New York, April 10, 2008.
- Conference on Classical Convex Geometry, University of Missouri-Columbia, March 21-23, 2008.
- Colloquium, University of Alberta, Edmonton, February 4, 2008.
- Third annual conference of the EU network "Phenomena in High Dimensions", Samos (Greece), June 25-29, 2007.
- Analysis seminar, Université de Marne-la-Vallée (France), June 19, 2007.
- Fourth International Workshop on Convex Geometry - Analytic Aspects, Cortona (Italy), June 3-9, 2007.
- Special Analysis Seminar, University of Missouri, Columbia, MO, April 17, 2007.
- AMS Sectional Meeting, Special Session on Fourier Analysis and Convexity, Stevens Institute of Technology, Hoboken, NJ, April 14-15, 2007.
- Joint Mathematics Meetings, AMS Special Session on Radon Transforms, Convex Geometry, and Geometric Analysis, New Orleans, LA, January 5-8, 2007.
- Workshop on Harmonic Analysis and Applications, LSU, Baton Rouge, LA, January 3-4, 2007.
- Probabilistic and Combinatorial Approach in Analysis, CBMS/NSF Regional Research Conference in Mathematical Sciences, Kent State University, Kent OH, August 6-12, 2006.
- Banach spaces and their applications in Analysis, a conference in honor of Nigel Kalton's 60th birthday, Miami University, Oxford OH, May 22-27, 2006.
- 2006 Midwest Geometry Conference, University of Oklahoma, Norman OK, May 5-7, 2006.

- AMS Sectional Meeting, Special Session on Geometry of Banach Spaces and Connections with Other Areas, Miami FL, April 1-2, 2006.
- Colloquium, University of Akron, Akron OH, March 17, 2006.
- Colloquium, Case Western Reserve University, Cleveland OH, February 13, 2006.
- Colloquium, Case Western Reserve University, Cleveland OH, January 27, 2006.
- Colloquium, Kent State University, Kent OH, January 26, 2006.
- Joint Mathematics Meetings, AMS Special Session on Recent Trends in Convex and Discrete Geometry, San Antonio, TX, January 12-15, 2006.
- Conference on Convex Geometry and High Dimensional Phenomena, Vienna (Austria), July 20-27, 2005.
- Analysis seminar, Universidad de Zaragoza, Zaragoza (Spain), June 16, 2005.
- Educational Workshop on Geometric Inequalities, Florence (Italy), May 16-20, 2005.
- Analysis seminar, Kansas State University, Manhattan, KS, February 23, 2005.
- Analysis seminar, University of Missouri-Columbia, October 5, 2004.
- SUMIRFAS, Texas A&M University, College Station, TX, August 6-8, 2004.
- Geometry seminar, Institute for Low Temperature Physics and Engineering, Kharkov (Ukraine), July 7, 2004.
- First Karazin Scientific Readings, Kharkov National University, Kharkov (Ukraine), June 14-16, 2004.
- Geometry and Nonlinearity Seminar, Warsaw University, Warsaw (Poland), November, 2000.
- 3-rd International Conference on Geometry “in the large”, Cherkassy (Ukraine), June, 1999.
- Geometry Seminar, Kharkov State University, Kharkov (Ukraine), 1997 - 1999.

Participation in Workshops

- Workshop on Convex Geometry and its Applications, Oberwolfach (Germany), November 29 - December 4, 2009.
- Workshop on Affine Convex Geometric Analysis, BIRS, Banff, AB, January 11 - 16, 2009.
- Workshop on Fourier analytic methods in convex geometry, American Institute of Mathematics, Palo Alto, CA, August 20-24, 2007.
- Fourth International Workshop on Convex Geometry - Analytic Aspects, Cortona (Italy), June 3-9, 2007.
- Workshop on Harmonic Analysis and Applications, LSU, Baton Rouge, LA, January 3-4, 2007.
- Probabilistic and Combinatorial Approach in Analysis, CBMS/NSF Regional Research Conference in Mathematical Sciences, Kent State University, Kent OH, August 6-12, 2006.
- The Interplay between Convex Geometry and Harmonic Analysis, CBMS/NSF Regional Research Conference in Mathematical Sciences, Kansas State University, Manhattan KS, July 29 - August 3, 2006.
- Asymptotic Theory of the Geometry of Finite Dimensional Spaces, Erwin Schrödinger Institute, Vienna (Austria), July - August 2005.
- Educational Workshop on Geometric Inequalities, in honor of the 65th birthday of Prof. Rolf Schneider, Firenze (Italy), May 16 - 20, 2005.

- Workshop in linear analysis, Texas A&M University, College Station, July 29 - August 13, 2004.
- MSRI summer school “Global behavior of minimal surfaces”, University of California-Berkeley, June 25 - July 6, 2001.
- Research group “Local and global behavior of surfaces in 4-dimensional Euclidean space”, International Banach Center, Warsaw (Poland), November 13 - 25, 2000.

Teaching experience

- University of Alberta:
 - Calculus I for engineers (Fall 2010)
 - Intermediate Calculus I (Winter 2010)
 - Calculus I for engineers (Fall 2009)
 - Calculus II (Winter 2009)
 - Intermediate Calculus I (Fall 2008)
- University of Oklahoma:
 - Calculus III (Fall 2007-Spring 2008)
 - Calculus IV (Spring 2007)
 - Introduction to Ordinary Differential Equations (Fall 2006)
 - Linear Algebra I (Fall 2006)
- University of Missouri:
 - Elements of Calculus (WS 2006)
 - Calculus I (WS 2005 - FS 2005)
 - Finite Mathematics (WS 2004 - FS 2004)
 - College Algebra (FS 2003)
 - Calculus II (FS 2001 - WS 2003)
- Kharkov State University:
 - Analytic Geometry (WS 2000 - FS 2000)
 - Foundations of Geometry (FS 2000)
 - Seminar for undergraduates “Knots and Links” (FS 2000)
 - Seminar for undergraduates “Locally Euclidean Geometries” (FS 2000)
 - Seminar for undergraduates “Convex Bodies” (WS 1999 - FS 1999)

Use of technology in classroom

- Mathematica – for Calculus courses
- Graphing calculator TI - 86 – for College Algebra

Professional service

- Referee for Advances in Geometry
- Referee for International Mathematics Research Notices
- Referee for Journal of Inequalities and Applications
- Referee for Journal of Mathematical Analysis and Applications

Professional affiliations

- Member of Canadian Mathematical Society