

Boaz Slomka

Curriculum Vitae

Department of Mathematics
Weizmann Institute of Science
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Education

- 2009-2014 **Ph.D. in Mathematics**, *Tel Aviv University*, Israel.
Thesis *Geometric properties of convex bodies and their functional extension.*
Supervisor Prof. Shiri Artstein-Avidan.
- 2007-2009 **M.Sc. in Mathematics**, *Tel Aviv University*, Israel.
(Summa Cum Laude)
Thesis *Characterizing isomorphisms associated with different convex structures.*
Supervisor Prof. Shiri Artstein-Avidan.
- 2003-2007 **B.Sc. in Physics & Mathematics**, *Tel Aviv University*, Israel.
(Combined program, Magna Cum Laude)

Academic Positions

- 2018-2019 **Postdoctoral Research Fellow**, *Weizmann Institute of Science*, Rehovot, Israel.
2015-2018 **Postdoctoral Assistant Professor**, *University of Michigan*, Ann Arbor, USA.
2014-2015 **CRM-ISM Postdoctoral Research Fellow**, *Centre de Recherches Mathématiques*, Montreal, Canada.

Additional Professional Experience

- 2007-2009 **Software Engineer R&D**, *Paradigm Geophysical LTD.*
2000-2003 **Military Service**, *Israel Defense Forces.*
Mandatory service including a year of educational work in high schools and community centers

Academic And Professional Awards

- 2016 **AMS-Simons travel grant**, *The AMS-Simons foundation.*
2014 **Postdoctoral top-up award**, *Research and Graduate Studies, Concordia University.*
2013 **Marejn Scholarship**, *The Don and Sara Marejn Scholarship Fund.*
2013 **Excellent teacher prize**, *School of Mathematical Sciences, Tel Aviv University.*
2012 **Excellent PhD student scholarship**, *Faculty of Exact Sciences, Tel Aviv University.*
2011 **Excellent PhD student prize**, *School of Mathematical Sciences, Tel Aviv University.*

2009 **Excellent M.Sc student prize**, *School of Mathematical Sciences, Tel Aviv University.*

Teaching Experience

- 2015-2018 **Lecturer**, *University of Michigan.*
Winter 2018, Fall & Winter 2016-17: Math 425, Introduction to probability, Fall 2015: Math 115, Calculus
- 2015 **Lecturer**, *McGill University, Montreal.*
Winter 2015: Math 111, Mathematics for Education Students
- 2008-2014 **Instructor**, *Tel Aviv University.*
I have instructed the courses: Calculus 1,2,3 for math majors, Probability for mathematicians, and Calculus for physicists
- 2004-2007 **Grader**, *Tel Aviv University.*
I have graded various courses in physics

Mentoring

- 2016 **REU Summer project**, *University of Michigan.*
Together with B. Vritsiou, we ran an undergraduate summer project. Students: Heather Weaver (Case Western Reserve University) and Daniel Barg (Columbia University). Subject: The Levi-Hadwiger covering problem
- 2015 **ISM Summer project**, *Concordia University, Montreal.*
Together with A. Stancu, we ran an undergraduate summer project. Student: Brahim Abdenbi (Concordia University). Subject: Convexity theory in models of the hyperbolic space

Active Participation In Scientific Meetings

- Mar' 2018 **Workshop on Emerging Trends in Geometric Functional Analysis**, Banff, Canada.
- Dec' 2017 **Analysis seminar talk**, *Bar-Ilan University, Ramat Gan, Israel.*
- Dec' 2017 **Colloquium talk**, *Ben-Gurion University, Beer-Sheva, Israel.*
- May 2017 **Workshop on Recent Advances in Discrete and Analytic Aspects of Convexity**, Banff, Canada.
- April 2017 **Banach Spaces seminar talk**, *Texas A&M University, College Station, USA.*
- April 2017 **Analysis seminar talk**, *Kent State University, Kent, USA.*
- Feb' 2016 **Workshop on Asymptotic Geometric Analysis**, Oberwolfach, Germany.
- Nov' 2014 **Analysis seminar talk**, *Concordia University, Montreal, Canada.*
- Oct' 2014 **Analysis seminar talk**, *McGill University, Montreal, Canada.*
- Oct' 2014 **Analysis seminar talk**, *Laval University, Quebec, Canada.*
- June 2014 **Second joint international meeting of the AMS and the IMU**, Tel Aviv, Israel.
- Oct' 2013 **Discrete Mathematics seminar talk**, *Institute for Advance Studies, Princeton, USA.*
- Oct' 2013 **Colloquium talk**, *Polytechnic Institute, New York, USA.*
- Oct' 2013 **Geometry seminar talk**, *Courant institute, New York, USA.*

- Oct' 2013 **Analysis seminar talk**, *Kent State University*, Kent, USA.
- Oct' 2013 **Analysis seminar talk**, *Case Western Reserve University*, Cleveland, USA.
- Oct' 2013 **Analysis/Probability seminar talk**, *University of Michigan*, Ann Arbor, USA.
- Oct' 2013 **Geometric Analysis seminar talk**, *University of Alberta*, Edmonton, Canada.
- Sep' 2013 **Conference on Convex Geometry**, Castro Urdiales, Spain.
- Mar' 2013 **Combinatorics day**, *Tel Aviv University*, Tel Aviv, Israel.
- June 2011 **Fifth International Workshop on Convex Geometry Analytic Aspects**, Cortona, Italy.
- April 2011 **Workshop on Geometry and the Distribution of Volume in Convex Bodies**, Kibbutz Hagoshrim, Israel.
- Fall 2010 **Thematic program on Asymptotic Geometric Analysis**, *Fields Institute*, Toronto, Canada.
- April 2010 **Workshop on Volume Inequalities**, Banff, Canada.

Publications and Preprint

On duality and endomorphisms of lattices of closed convex sets, *Adv. Geom.* (2011) Vol. 11, Issue 2, pp. 225–239

Order-isomorphisms in cones and a characterization of duality for ellipsoids, *Selecta Math. (N.S.)* 18 (2011), no. 2, 391–415. (with S. Artstein-Avidan)

A characterization of duality through section/projection correspondence in the finite dimensional setting, *J. Funct. Anal.* 261 (2011), no. 11, 3366–3389. (with V. Milman and A. Segal)

Projections of log-concave functions, *Commun. Contemp. Math.* 14 (2012), no. 05, 1250036. (with A. Segal)

Duality on convex sets in generalized regions, *Asymptotic Geometric Analysis*, *Fields Institute Communications*, vol. 68, Springer New York, 2013, pp. 289–298. (with A. Segal)

On polygons and injective mappings of the plane, *Asymptotic Geometric Analysis*, *Fields Institute Communications*, vol. 68, Springer New York, 2013, pp. 299–312.

A note on Santaló inequality for the polarity transform and its reverse, *Proc. Amer. Math. Soc.* 143 (2015), no. 4, 1693–1704. (with S. Artstein-Avidan)

On weighted covering numbers and the Levi-Hadwiger conjecture, *Isr. J. Math.* (2015) 209: 125. (with S. Artstein-Avidan)

The fundamental theorems of affine and projective geometry revisited, *Commun. Contemp. Math.* 19 (2017), no. 05, 1650059. (with S. Artstein-Avidan)

Approximations of convex bodies by measure-generated sets, To appear in *Geom. Ded.* (with H. Huang)

Functional covering numbers, submitted. (with S. Artstein-Avidan)

Ulam floating bodies, submitted. (with H. Huang and E. Werner)

Covering numbers of log-concave functions and related inequalities, under preparation