### Department of Pure Mathematics School of Mathematical Sciences Tel Aviv University

#### Shiri ARTSTEIN-AVIDAN, Ph.D.

#### CURRICULUM VITAE

ID number: 032833188

Home Address: Veidat Katovich street 20,

Tel Aviv, Israel

Tel No.: 03-6411107 (home)

03-6407614 (work) 0502-455499 (cell)

E-mail: shiri@tauex.tau.ac.il

Date and place of birth: September 28, 1978, Jerusalem

Marital status: Married No. of children: Three

### **EDUCATION**

1997-2000 B.Sc., Mathematics, Summa Cum Laude

Tel Aviv University Date of award: 2000

2000-2004 Ph.D. Mathematics, with distinction

Tel Aviv University Date of award: 2004

Title of Doctoral Dissertation: Entropy Methods Name of Supervisor: Professor Vitali D. Milman.

#### ACADEMIC AND PROFESSIONAL EXPERIENCE

1999-2001 Teaching Assistant, Tel Aviv University

2001-2004 Instructor, Tel Aviv University

2004-2006 Veblen Research Instructor, Dep. of Math., Princeton Uni-

versity and School of Math., Institute for Advanced Study,

Princeton NJ

2006-2009	Senior Lecturer, School of Math., Tel Aviv University, Tel Aviv, Israel
2009-2014	Professor (assoc.), School of Math., Tel Aviv University, Tel Aviv, Israel
2014-	Professor (full), School of Math., Tel Aviv University, Tel Aviv, Israel

# ADMINISTRATIVE AND EDITORIAL ROLES

2019-2022	Chair of the Pure Mathematics Department, Tel Aviv University.
2020-	Head of the Adi Lautman Program for Outstanding Students ("Had Tchumit"), Tel Aviv University.
2019-	Editor: Geometric and Functional Analysis journal (GAFA)
2020-	Editor: International Mathematics Research Notices (IMRN)
2020-	Editor: Journal of Fixed Point Theory & Applications (JFPTA)
2016-	Member of the Eric & Wendy Schmidt Postdoctoral Award for Women in Mathematical and Computing Sciences
2021-2024	Member of the EMS/WiM Committee
2022-	Editor: Israel Journal of Mathematics
2024-	Editor: Communications in Contemporary Mathematics
2024-	Malag Committee for Advancement of Gender Equality Member

### ACADEMIC AND PROFESSIONAL AWARDS

1997-2000	The Adi Lautman Program for Outstanding Students, Tel Aviv University.
1998-1999	Dean's list, Tel Aviv University
2000	Rector's list, Tel Aviv University
2000	CheckPoint Com. prize for excellence in studies

2001	Excellent PhD student prize, Tel Aviv University
2001	The Knesset certificate of appreciation for excellent students
2003	The Wolf foundation research prize for PhD students.
2004/5	Rothschild Fellowship (declined)
2006	Haim Nessyahu Prize in Mathematics of the Israel Mathematical Union
2006-2009	Alon Fellowship (of the Israeli Academy of Science)
2007	Sackler Cathedra for young faculty, Tel Aviv University.
2008	The Krill Prize for Excellence in Scientific Research, Wolf Foundation
2010	Coxeter Lecture series, Fields institute, September 17, 20 & 21, 2010, Toronto.
2015	Erdös Prize of the Israel Mathematical Union
2016	Tel Aviv University award for commitment to the advancement of women in science
2016	Kadar Family Award for Outstanding Research
2021-	Cathedra: Chair of Asymptotic Convex Geometry
2022	Naamat "the $100^{th}$ award" for outstanding women scientists, honorary mention
2024	Speaker (sectional) at the ECM Sevillia.
2026	Speaker at the ICM Philadelphia (Analysis Section)

# POSTDOCS SUPERVISED

2018-2019	Matthiew Stuart (Ph.D. from University of Alberta)
2018 – 2020	Ben Li (Ph.D. from Case Western Reserve)
2019-2020	Fabian Mussnig (Ph.D. from TU Wien)
2020 – 2022	Katarazyna Wycsezany (Ph.D. from Cambridge)
2020 – 2022	Michael Roysdon (Ph.D. from Kent State University)
2021-2022	Gautam Aishwarya (Ph.D. from Univ. of Delaware)

# PH.D. STUDENTS

2009–2014	Boaz Slomka, Asymptotic analysis and convexity. Currently a Senior Lecturer at the Open University, Israel.
2010-2015	Dan Florentin (joint supervision with Vitali Milman), Inequalities in Asymptotic Geometric Analysis. Currently a Senior Lecturer at the Bar-Ilan University, Israel.
2019–2024	Shay Sadovsky, Asymptotic convex geometry, optimal transport, mixed volumes, and related topics.
2019–2024	Pazit Haim-Kislev, Symplectic invariants and convex bodies (joint supervision with Yaron Ostrover).
2020-	Arnon Schur (joint supervision with Yaron Ostrover)
2022 - 2025	Eliyahu Putterman (joint supervision with Muli Safra)

# M.SC. STUDENTS

2007-2008	Tal Weisblatt (joint supervision with Vitali Milman), The Santaló region of a log-concave function.
2008-2009	Boaz Slomka, Characterizing isomorphisms associated to different convex structures.
2008-2010	Dan Florentin (joint supervision with Vitali Milman), Convexity preserving maps.
2008–2010	Orit Raz, Fractional covering numbers (currently senior facult at the Hebrew University, Jerusalem).
2012–2013	Yoav Nir (joint supervision with Yaron Ostrover), Minimizing closed characteriztics on convex bodies.
2011–2014	Keshet Gutman-Einhorn, Godebersen's conjecture and measures of symmetry.
2014-2016	David Katzin, Isotropic Measures and Maximizing Ellipsoids: Between John and Loewner.
2017–2019	Shay Sadovsky, Volume and Mixed Volume Inequalities for Anti-Blocking Bodies.
2017–2019	Pazit Haim-Kislev (joint supervision with Yaron Ostrover), The EHZ capacity of cubes and simplices.
2016-2019	Hila Barel, Optimal Transportation Problem for Polar Cost.
2018-2020	Eliyahu Putterman, Local methods in convex geometry.

2020-2023	Tomer Falah, Boundary sums and vertex generated polytopes (joint with Boaz Slomka)
2021-	Tomer Milo (joint with Dan Florentin)
2024-	Boaz Guberman
2024-	Ido Katzav (joint with Michal Feldman CS)

#### ACTIVE RESEARCH GRANTS

2018 - 2025	(PI) ERC consolidator grant Title: "Polarity and Symme-
	try in Geometric Functional Analysis". Amount: 1.5 Million
	Euro

2025–2029 (PI) Israel Science Foundation personal research grant. Title: "Cost-dualities in convex geometry, summands and bodies of constant width", joint with D. Florentin Amount: 290,000 NIS per year.

2021–2025 (PI) United States - Israel Binational Science Foundation research grant, joint with: J. Solomon and Y. Rubinstein. Title: Analysis of Monge–Ampère type equations with applications to Convex Geometry, Differential Geometry, and Several Complex Variables. Amount: 140,000 US\$.

### OTHER ACTIVITIES

1999	Summer student at the Weizmann Institute, 1999 (research
	in combinatorics under the supervision of Professor Aviezri S.
	Fraenkel).

2002— Teaching various mathematics courses, mainly at Tel Aviv University (also at Princeton), mainly for mathematics students, mainly but not only in topics of Analysis and Geometry (from first year up to graduate level)

Visiting PhD student, University College London, February-March and June 2002 (research in collaboration with Prof. Keith M. Ball).

2002 Attended the ICMS Instructural Conference on Combinatorical Aspects of Functional Analysis, Edinburgh, March 26 - April 4, 2002.

2002	Visiting PhD student, Universities Paris 6 and Paris 7, April-
	May 2002 (research in collaboration with Prof. Franck Barthe).
2003	Participated in Geometrie der Banachraume Workshop in Oberwolfach, April 13-19, 2003.
2003	Visiting PhD student, University Paris 6, June-August 2003.
2005	Summer guest of the Weizmann Institute, June and August 2005.
2006-present	Co-organizer of the Asymptotic Geometric Analysis seminar at Tel Aviv University.
2008	Seville, Spain, part of the organizing committee of the 4th Annual Conference of the Phenomena in High Dimensions network, June 23-27, 2008.
2009	Member of the organizing committee of "The state of Geometry and Functional Analysis", an international conference in honor of the $70^{th}$ anniversary of Prof. Vitali Milman, June 24-30, 2009.
2012-2015	Speaker at "From Gauss to Google" - a program for the introduction of high school mathematics teachers to current research topics in mathematics.
2012	Eilat and Haifa, organizer of "ISF Workshop on Interactions Between Asymptotic Geometric Analysis and Mathematical Physics" and of the "Conference on Interactions Between Asymptotic Geometric Analysis and Mathematical Physics" May 3-10, 2012.
2014	Local organizer of the joint IMU-AMS meeting held at Bar-Ilan and Tel Aviv Universities, June 16-20, 2014.
2015,16,17,18,	20, 24, 25 Organizer of the First-Seventh Israeli conferencea for Women in Mathematics held at Tel Aviv University, August 2015, IIAS Jerusalem, September 2016 and September 2017, Sde-Boker October 2018, Netanya March 2020, Tel Aviv May 2024, Netanya April 2025.
2015-2016	Member of the Tel Aviv University team of the qualifying program for high school mathematics teachers.
2016	Organizer of the Asymptotic Geometric analysis workshop at Oberwolfach, February 22-27, 2016.

2017	MSRI Research professor in the program "Geometric Functional Analysis and Applications" August–December, 2017 (and organizer of the Connections for Women: geometry and probability in high dimensions conference for this program).
2019	Organizer of the conference "AGA 2019" celebrating the 80th anniversary of Prof. V. Milman.
2021	Giving a course at the CIME summer school entitled "Convex Geometry", Cetraro, Italy, Aug 30 - Sep 3, 2021
2021	Organizer of the Oberwolfach Workshop on Convex Geometry, December 2021.
2023	Organizer of the BIRS workshop in Granada "Geometric Inequalities, Convexity and Probability" June 11-16 2023.
2024	Organizer of the Oberwolfach Workshop on Convex Geometry, December 2024.
2004-	Reviewer for: Israel Journal, JFA, Advances, IMRN, Studia Mathematika, GAFA, various other journals and international grants.

### ACTIVE PARTICIPATION IN SCIENTIFIC MEETINGS

2001	Oberwolfach, Workshop on Convex Geometry, April 22-28, 2001
2001	Rehovot, Functional Analysis Meeting of the Israel Mathematical Union, May 21, 2001
2001	Crete, Workshop on Convex Geometric Analysis, August 19-23, 2001
2002	Biarritz, European Mathematical Union Meeting on Analysis, May 7-12, 2003
2002	Paris, Geometry and Functional Analysis Day, May 31, 2002
2002	Cambridge, Probability Seminar, June 18, 2002
2002	Vancouver, Thematic Programme on Asymptotic Geometric Analysis, Summer 2002.
2002-2004	Tel Aviv, GAFA seminar: November 8, 2002; March 28, 2003; December 5, 2003; February 19, 2004; December 24, 2004

2003	Kiel, Conference on Banach Spaces and Convex Geometric Analysis, April 7-11, 2003
2003	Zikhron-Yaakov, Israel Mathematical Union meeting, May 8-9, $2003$
2003	Jerusalem, Combinatorics and Convexity Seminar at the Hebrew University, May 26, 2003
2003	Cortona, Workshop on Convex Geometry, June 9-14, 2003
2003	Paris, Geometry and Functional Analysis Day, June 27, 2003.
2004	Banff, Conference in Convex Geometric Analysis, July 10-15, 2004.
2004	Snowbird, Conference in Gaussian Measure and Geometric Convexity, July 18-23, 2004.
2004,2005	New York, Colloquium at Polytech. Uni., October 28, 2004; November 3, 2005.
2004	Princeton, Princeton University, Analysis Seminar, November 22, 2004.
2004	Princeton, Institute for Advanced Study, Discrete Math. Seminar, December 6, 2004.
2005	Jerusalem, Hebrew University, IAS Workshop "Contemporary Ramifications of Banach Space Theory", June 22, 2005.
2005	Vienna, Asymptotic Theory of the Geometry of Finite Dimensional Spaces School at the ESI, July 13.
2005	New York, Columbia University, Probability seminar, October 14, 2005.
2005	Cleveland Ohio, Case Western Reserve University, Colloquium talk, November 18, 2005.
2006	Canberra Australia, Australian National University, Analysis and PDE seminar, March 27, 2006.
2006	Neve Ilan, Israel, IMU meeting, May 2006.
2006	Paris, Annual Conference of Phenomena in High Dimensions Network, June 2006.
2006	Jerusalem, Hebrew University, Colloquium, November 17, 2006.

2007	Cortona, Italy, Fourth International Workshop on "Convex Geometry - Analytic Aspects", June 3-9, 2007.
2007	Ottawa, Canada, gave a mini-course at "Geometrization of Probability", Fields Institute Workshop, September 22-24, 2007.
2008	Budapest, Intuitive Geometry, in Memoriam László Fejes Tóth Alfréd Rényi Institute of Mathematics, June 30 - July 4, 2008.
2010	Bad Herrenalb, Workshop on Convex and Stochastic Geometry May 30 - June 4, 2010.
2010	Toronto, Thematic Program on Asymptotic Geometric Analysis September 2010.
2011	Cortona, Plenary talk at the Fifth International Workshop on "Convex geometry analytic aspects" June 12-18, 2011.
2011	Frankfurt, Plenary talk at "Convex and Integral Geometry" Goethe-University Franfurt September 26-30, 2011.
2012	Israel, various talks on "Differential analysis of the polarity transform" Jerusalem Hebrew University Mathematics Colloquium, Feb 2nd; Rehovot, Weizmann Institute Mathematical Analysis and Applications Seminar May 22; Be'er Sheva, Ben Gurion University Mathematics Colloquium, June 19; Tel Aviv University applied mathematics seminar, May 1 2012.
2013	Banff, presented two talks at the conference "Interplay of convex geometry and Banach space theory" March 10-15, 2013.
2013	Haifa, Colloquium talk at the Technion, "Symplectic Isoperimetry implies Mahler's conjecture", November 18, 2013.
2013	College park, Maryland, Colloquium talk at University of Maryland, "Symplectic measurements and billiards", December 4, 2013.
2014	Jerusalem, Hebrew University, Combinatorics seminar, "Symplectic isoperimetry, Mahler's conjecture and billiards", February 17, 2014.
2015	Dead sea, Erdös lecture at the Annnual Meeting of the Israel Mathematical Union 28-31 May 2015
2015	Jerusalem, Conference in honor of Gil Kalai's $60^{th}$ birthday, "measures of symmetry", June 16, 2015.

2015	Rehovot, Weizmann Institute Mathematical Analysis and Applications Seminar November 17, 2015.
2015	Oberwolfach, Workshop on Convex Geometry, "Godberesn's conjecture and related inequalities" Dec. 6-11, 2015.
2016	Berlin, BMS Sonia Kovalevskaya Colloquium, April 29, 2016.
2016	Vienna, Speaker at "Conference on Convex and Discrete Geometry" celebrating Prof. Grubers's $75^{th}$ birthday, "Billiard in convex domains", July 3–8, 2016.
2016	Berlin, Speaker at the mini-symposium "Asymptotic Geometric Analysis" at the 7-th Congress of the European Mathematical Society, 18–22 July 2016.
2017	BIRS Banff, "Recent Advances in Discrete and Analytic Aspects of Convexity" May 21–26, 2017
2017	MSRI Berkeley, speaker at "Geometric functional analysis and applications", November 13–17, 2017
2018	London, Queen Mary University colloquium "Around Godbersen's conjecture for mixed volumes", February 12, 2018.
2018	Graz, Austria, Plenary talk at "European Women in Mathematics General Meeting, CELEBRATING 30 YEARS OF THE EWM", September 3–7, 2018.
2019	Jena, Germany, Plenary talk at "Conference on Convex, Discrete and Integral Geometry" September 16–20, 2019.
2019	Atlanta, Georgia, Lecture series on cost and transportation, Workshop in Convexity and geometric aspects of Harmonic Analysis, December 9–13, 2019.
2020	Banff, presented at the conference "Geometric Tomography" February 13, 2020.
2020	Simons Institute, Berkeley, Seminar for the program "Probability, Geometry, and Computation in High Dimensions", October 13, 2020.
2021	Bremen, Germany; Plenary talk at "Current trends in convex geometry", March 15-19, 2021.
2021	Bonn, HIM trimester "The Interplay between High Dimensional Geometry and Probability"; (lecture given April 8, 2021).

2021	UCLA Distinguished Women in Math Lecture Series, May 20, 2021; UCLA Analysis and PDE seminar May 25, 2021.
2022	Speaker at "High Dimensional Phenomena" conference, IHP (Paris), June 7-10, 2022.
2022	Plenary speaker in "geOmetry, ana Lysis & conv Exity", Sevilla 20-24 June 2022
2022	ISTA Austria, Institute Colloquium talk "Measure transportation and duality", November 28 2022.
2023	Cortona, Plenary talk at the International Workshop on "Convex geometry analytic aspects" June 23-29, 2023.
2024	Bonn, speaker at the Workshop on High Dimensional Phenomena: Geometric and Probabilistic Aspects, March 11-15, 2024.
2024-	Consultant for math books for middle school, CET – The Center for Educational Technology, Israel
2024	Sevillia, Sectional speaker at the ECM, July 19, 2024.
2025	Nachsholim, speaker at 'Workshop in High-dimensional Phenomena and Convexity", June 9-13, 2025.

### LIST OF PUBLICATION

- Shiri Artstein, Proportional concentration phenomena on the sphere, Israel J. Math., Vol 132 (2002), 337–358.
- Shiri Artstein, Vitali D. Milman and Stanislaw J. Szarek More on the duality conjecture for entropy numbers, Comptes Rendus Mathematique, Volume 336, Issue 6 (2003), no. 6, 479–482.
- 3. Shiri Artstein, Vitali D. Milman and Stanislaw J. Szarek, Duality of metric entropy in Euclidean space, Comptes Rendu Mathematique, Volume 337, Issue 11 (2003), no. 11, 711–714.

- Shiri Artstein, Keith M. Ball, Franck Barthe and Assaf Naor, Solution of Shannon's problem on the monotonicity of entropy, Journal of Amer. Math. Soc. Vol. 17 (2004), no. 4, 975–982.
- 5. Shiri Artstein, Vitali D. Milman, Stanislaw J. Szarek and Nicole Tomczak-Jagermann,

On Convexified packing and entropy duality, Geometric And Functional Anal. Vol. 14, (2004), no. 5, 1134–1141.

- Shiri Artstein, Vitali D. Milman and Stanislaw J. Szarek Duality of metric entropy, Annals of Math. (2) 159 (2004), no. 3, 1313–1328.
- Shiri Artstein, Keith M. Ball, Franck Barthe and Assaf Naor,
  On the rate of convergence in the entropic central limit theorem,
  Probability Theory and Related Fields, Vol. 129 (2004), no. 3, 381

  390.
- 8. Shiri Artstein-Avidan, Bo'az Klartag and Vitali D. Milman, On the Santaló point of a function and a functional form of the Santaló inequality, Mathematika 51 (2004) no. 1-2, (2005) 33–48.
- Shiri Artstein-Avidan, Omer Friedland and Vitali D. Milman, Geometric Applications of Chernoff-type estimates and a zigzag approximation for balls, Proc. Amer. Math. Soc. 134 (2006) no. 1, 1735–1742.
- Shiri Artstein-Avidan and Vitali D. Milman,
   Logarithmic reduction of the level of randomness in some probabilistic geometric constructions,
   J. Func. Anal. Vol. 235 (2006), no.1, 297–329.
- 11. Shiri Artstein-Avidan, Omer Friedland, Vitali D. Milman and Sasha Sodin

Polynomial bounds for large Bernoulli sections of  $\ell_1^N$ , Israel J. Math, Vol. 156 (2006) 141–155.

12. Shiri Artstein-Avidan, A Bernstein-Chernoff deviation inequality and geometric properties of

- random families of operators, Israel J. Math, Vol. 156 (2006) 187–204.
- 13. Shiri Artstein-Avidan and Vitali D. Milman,
  Using Rademacher permutations to reduce randomness,
  Algebra i Analiz 19 (2007), no. 1, 23–45 (Vol. dedicated to 85th
  birthday of V.A. Zalgaller); translation in St. Petersburg Math. J. 19
  (2008), no. 1, 15–31.
- Shiri Artstein-Avidan and Vitali D. Milman,
   A characterization of the concept of duality,
   Electron. Res. Announc. Math. Sci. 14 (2007), 42–59.
- Shiri Artstein-Avidan and Yaron Ostrover,
   On Symplectic Capcities and Volume Radius,
   ArXiv April 19, 2006. Math.SG/0603411
   http://arxiv.org/pdf/math.SG/0603411.pdf
- Shiri Artstein-Avidan, Vitali D. Milman and Y. Ostrover, The M-ellipsoid, symplectic capacities and volume, Comment. Math. Helv. 83 (2008), no. 2, 359–369.
- Shiri Artstein-Avidan and Vitali D. Milman,
   The concept of duality for measure projections of convex bodies,
   J. Funct. Anal. 254 (2008) no. 10 2648–2666.
- Semyon Alesker, Shiri Artstein-Avidan and Vitali D. Milman, A characterization of the Fourier transform and related topics, C. R. Math. Acad. Sci. Paris 346 (2008), no. 11–12, 625–628.
- Shiri Artstein-Avidan and Yaron Ostrover,
   A Brunn-Minkowski Inequality for Symplectic Capacities of Convex Domains,
   Int. Math. Res. Not. IMRN 2008, no. 13, Art. ID rnn044, 31pp.
- 20. Shiri Artstein-Avidan, Aviezri Fraenkel and Vera Sós, A two parameter family of an extension of Beatty sequences, Discrete Math. 308 (2008) no. 20, 4578–4588.

- Shiri Artstein-Avidan and Vitali D. Milman,
   A New Duality Transform; Une Nouvelle Transformée de Dualité.
   C. R. Math. Acad. Sci. Paris 346 (2008), no. 21–22, 1143–1148.
- 22. Shiri Artstein-Avidan and Vitali D. Milman,
  The concept of duality in convex analysis and the characterization of
  the Legendre transform.
  Annals of mathematics (2), Vol. 169 (2009) no. 2, 661–674.
- 23. Semyon Alesker, Shiri Artstein-Avidan and Vitali D. Milman, A characterization of the Fourier transform and related topics, Linear and Complex Analysis, 11–26, Amer. Math. Soc. Transl. Ser. 2, Vol. 226, a special volume in honour of Prof. V. Havin, Amer. Math. Soc., Providence, RI, 2009.
- Shiri Artstein-Avidan and Vitali D. Milman,
   A Characterization of the Support Map,
   Adv. Math. 223 (2010), no. 1, 379–391.
- Shiri Artstein-Avidan, Hermann König and Vitali D. Milman, The chain rule as a functional equation,
   J. Funct. Anal. 259 (2010), no. 11, 2999—3024.
- 26. Semyon Alesker, Shiri Artstein-Avidan, Dmitry Faifman and Vitali D. Milman, A characterization of product preserving maps with applications to a characterization of the Fourier transform, Illinois J. Math. 54 (2010), no. 3, 1115—1132 (2012).
- 27. Shiri Artstein-Avidan and Orit Raz, Weighted covering numbers of convex sets, Adv. Math. 227 (2011), no. 1, 730—744.
- 28. Shiri Artstein-Avidan and Vitali D. Milman, Hidden structures in the class of convex functions and a new duality transform, J. Eur. Math. Soc. (JEMS) 13 (2011), no. 4, 975-1004.
- Shiri Artstein-Avidan, Dan Y. Florentin and Vitali D. Milman, Order isomorphisms in windows, Electron. Res. Announc. Math. Sci. 18 (2011), 112—118.

30. Shiri Artstein-Avidan, Bo'az Klartag, Carsten Schütt and Elisabeth Werner,

Functional affine-isoperimetry and an inverse logarithmic Sobolev inequality,

- J. Funct. Anal. 262 (2012), no. 9, 4181-4204.
- 31. Shiri Artstein-Avidan and Boaz A. Slomka, Order isomorphisms in cones and a characterization of duality for ellipsoids, Selecta Math. (N.S.) 18 (2012), no. 2, 391-415.
- 32. Shiri Artstein-Avidan and Yaron Ostrover, Bounds for Minkowski Billiard Trajectories in Convex Bodies, Int. Math. Res. Not. IMRN 2014, no. 1, 165–193.
- 33. Shiri Artstein-Avidan and Vitali D. Milman, Stability results for some classical convexity operations, Adv. Geom. 13 (2013), no. 1, 51—70.
- 34. Shiri Artstein-Avidan, Dan Florentin and Yaron Ostrover, Remarks about Mixed Discriminants and Volumes Commun. Contemp. Math. 16 (2014), no. 2, 14 pp.
- 35. Shiri Artstein-Avidan, Roman Karasev and Yaron Ostrover, From Symplectic Measurements to the Mahler Conjecture Duke Math. J. 163 (2014), no. 11, 2003—2022.
- 36. Shiri Artstein-Avidan and Boaz A. Slomka, A note on Santaló inequality for the polarity transform and its reverse Proc. Amer. Math. Soc. 143 (2015), no. 4, 1693—1704.
- 37. Shiri Artstein-Avidan and Boaz A. Slomka, On weighted covering numbers and the Levi-Hadwiger conjecture, Israel J. Math. 209 (2015), no. 1, 125—155.
- 38. Shiri Artstein-Avidan, Keshet Einhorn, Dan I. Florentin and Yaron Ostrover,

On Godbersen's conjecture, Geom. Dedicata 178 (2015), 337—350

- Shiri Artstein-Avidan and Yanir Rubinstein,
   Differential analysis of polarity: polar Monge Ampère, Hamilton-Jacobi and conservation laws,
   J. Anal. Math. 132 (2017), 133—156.
- 40. Shiri Artstein-Avidan and Boaz A. Slomka, The fundamental theorems of affine and projective geometry revisited Commun. Contemp. Math. 19 (2017), no. 5, 39 pp.
- 41. Shiri Artstein-Avidan, Dan I. Florentin, Yaron Ostrover and Daniel Rosen, Duality of Caustics in Minkowski Billiards Nonlinearity, (2018), Volume 31, Number 4.
- 42. Shiri Artstein-Avidan and David Katzin, *Isotropic measures and maximizing ellipsoids: Between John and Loewner*, Proc. Amer. Math. Soc. 146 (2018), 5379-5390
- 43. David Alonso-Gutiérrez, Shiri Artstein-Avidan, Bernardo González Merino, C. Hugo Jiménez, Rafael Villa, Rogers-Shephard and local Loomis-Whitney type inequalities, Mathematische Annalen, 2019.
- 44. Shiri Artstein-Avidan and Boaz A. Slomka, Functional covering numbers, The Journal of Geometric Analysis (2019).
- 45. Shiri Artstein-Avidan, Dan Florentin and Alexander Segal, Functional Brunn-Minkowski inequalities induced by polarity, Advances in Mathematics. 364 (2020)
- 46. Shiri Artstein-Avidan, Shay Sadovsky and Katarzyna Wyczesany *A Rockafellar-type theorem for non-traditional costs*, Advances in Mathematics 395, 2022, 108–157.
- 47. Shiri Artstein-Avidan and Eli Putterman, Some new positions of maximal volume of convex bodies La Matematica 1 (4) 2022, 765–808
- 48. Shiri Artstein-Avidan, Shay Sadovsky and Katarzyna Wyczesany Optimal measure transportation with respect to non-traditional costs,

- Calculus of Variations and Partial Differential Equations, 62 (1) 2023, 1–39.
- 49. Shiri Artstein-Avidan, Shay Sadovsky and Raman Sanyal, Geometric Inequalities for Anti-Blocking Bodies, Communications in Contemporary Mathematics Vol. 25, No. 03 (2023)
- 50. Shiri Artstein-Avidan, Shay Sadovsky and Katarzyna Wyczesany A Zoo of Dualities, The Journal of Geometric Analysis volume 33, Article number: 238 (2023)
- 51. Shiri Artstein-Avidan Tomer Falah and Boaz A. Slomka, Boundary restricted Brunn-Minkowski inequalities, Communications in Contemporary Mathematics Vol. 26, No. 9 (2024) 2350056 (14 pages).
- 52. Shiri Artstein-Avidan, Chapter 4 in the book "Convex Geometry Cetraro, Italy 2021. (List of Authors: Shiri Artstein-Avidan, Gabriele Bianchi, Andrea Colesanti, Paolo Gronchi, Daniel Hug, Monika Ludwig and Fabian Mussnig) Lecture Notes in Mathematics 2332, CIME Foundation Subseries. ISBN 978-3-031-37882-9.
- 53. Shiri Artstein-Avidan Tomer Falah and Boaz A. Slomka, *Vertex generated polytopes*, To appear in Pure and Applied Functional Analysis.
- 54. Shiri Artstein-Avidan and Eli Putterman, On unbalanced difference bodies and Godbersen's conjecture. Proceedings of the American Mathematical Society, to appear, 2025. DOI: 10.1090/proc/17428.
- 55. Shiri Artstein-Avidan, Dualities in Convex Geometric Analysis and Beyond, Proceedings of the 2024 ECM Seville (accepted).
- 56. Shiri Artstein-Avidan, Arnon Chor, and Dan Florentin, *Isometries of the class of ball-bodies*. Colloquium Mathematicum, 178(2), 2025.

#### **Books**

- Shiri Artstein-Avidan, Apostolos Giannopoulos and Vitali Milman Asymptotic Geometric Analysis Part I.
   Mathematical Surveys and Monographs, 202. American Mathematical Society, Providence, RI, 2015. xx+451 pp. ISBN: 978-1-4704-2193-9
- Shiri Artstein-Avidan, Apostolos Giannopoulos and Vitali Milman Asymptotic Geometric Analysis Part II.
   Mathematical Surveys and Monographs, American Mathematical Society, Providence, RI 2021. xx+645 pp. ISBN: 978-1-4704-6360-1

### **Publications in Proceedings of Conferences**

- 1. Shiri Artstein,
  - The change in the diameter of a convex body under a random signprojection,
  - Geometric Aspects of Functional Analysis, 31–39, Lect. Notes in Math, 1850, Springer, Berlin, 2004.
- 2. Shiri Artstein-Avidan, Omer Friedland and Vitali D. Milman, Geometric Applications of Chernoff-type Estimates, Geometric Aspects of Functional Analysis, 45–75, Lect. Notes in Math, 1910, Springer, Berlin, 2007.
- 3. Shiri Artstein-Avidan, Dmitry Faifman, and Vitali D. Milman On Multiplicative Maps of Continuous and Smooth Functions, Geometric Aspects of Functional Analysis, 35–59, Lect. Notes in Math, 2050, Springer, Berlin, 2012.
- Shiri Artstein-Avidan, Dan Y. Florentin, and Vitali D. Milman, Order Isomorphisms on Convex Functions in Windows, Geometric Aspects of Functional Analysis, 61–122, Lect. Notes in Math, 2050, Springer, Berlin, 2012.

July 2025