

Christos Saroglou

CONTACT INFORMATION	Department of Mathematics School of Sciences University of Ioannina Panepistimioupoli, Ioannina, 45110, Greece	<i>office:</i> 503a <i>voice:</i> (+30) (265100) 8329 <i>E-mail:</i> csaroglou@uoi.gr & christos.saroglou@gmail.com <i>WWW:</i> http://http://users.uoi.gr/csaroglou/
RESEARCH INTERESTS	Convex and Affine Geometry, Isoperimetric Inequalities, Geometric Tomography, Integral Geometry, Geometric Functional Analysis, Asymptotic Geometric Analysis, Geometric Probability	
EDUCATION	2011	Ph.D. University of Crete, Department of Mathematics, Greece Thesis title: “Problems on convex bodies: extremal values of functionals, special positions.” Supervisor: Professor Souzanna Papadopoulou
	2005	M.Sc. University of Crete, Department of Mathematics, Greece Thesis title: Thesis Title: “P-partitions, Euler polynomials and equatorial spheres.” Supervisor: Professor Christos Athanasiadis
	2003	B.Sc. Aristotle University of Thessaloniki, Department of Mathematics, Greece.
ACADEMIC APPOINTMENTS	2023-	Associate Professor Department of Mathematics University of Ioannina, Greece
	2018-2023	Assistant Professor Department of Mathematics University of Ioannina, Greece
	2015-2018	Post-doctoral research scholar Department of Mathematical Sciences Kent State University, Kent, OH, USA
	2012-2015	Visiting Assistant Professor Department of Mathematics Texas A & M University, College Station, TX, USA
	2011-2012	Post-doctoral researcher Department of Mathematics Tel Aviv University, Tel Aviv, Israel.
PAPERS AND PREPRINTS	<ol style="list-style-type: none">1 Characterizations of extremals for some functionals on convex bodies, <i>Canad. J. Math.</i>, 62 (2010), 1404-1418.2 Volumes of projection bodies of some classes of convex bodies, <i>Mathematika</i>, 57 (2011), 329-353.3 Minimal surface area position of a convex body is not always an M-position, <i>Israel J. Math.</i>, 195 (2013), 631-645.4 Comparing the M-position with some classical position of convex bodies (joint work with E. Markessinis and G. Paouris), <i>Math. Proc. Cambridge Philos. Soc.</i>, 152 (2011), 131-152.5 Shadow systems: remarks and extensions, <i>Arch. Math.</i> (Basel), 100 (2013), 389-399.6 Remarks on the conjectured log-Brunn-Minkowski inequality, <i>Geom. Dedicata</i>, 177 (2015), 353-365.	

- 7 On the shape of a convex body with respect to its second projection body, *Adv. in Appl. Math.*, 67 (2015), 55-74.
- 8 On the equivalence between two problems of asymmetry on convex bodies, *Discrete Comput. Geom.*, 54 (3) (2015), 573-585.
- 9 More on logarithmic sums of convex bodies, *Mathematika*, 62 (2016), 818-841.
- 10 Characterization of simplices via the bezout inequality for mixed volumes (joint work with I. Soprunov and A. Zvavitch), *Proc. Amer. Math. Soc.* 144 (12) (2016), 5333-5340.
- 11 Iterations of the projection body operator and a remark on Petty's conjectured projection inequality (joint work with A. Zvavitch), *J. Func. Anal.*, 272 (2) (2017), 613-630.
- 12 Estimating volume and surface area of a convex body via its projections or sections (joint work with A. Koldobsky and A. Zvavitch), *Studia Math.*, 244 (2019), 245-264.
- 13 Star bodies with completely symmetric sections (joint work with S. Myroshnychenko and D. Ryabogin), *Int. Math. Res. Not.*, Volume 2019, Issue 10, May 2019, 3015-3031.
- 14 On some problems concerning symmetrization operators, *Forum Math.*, 31 (2) (2019), 479-489.
- 15 Wulff shapes and a characterization of simplices via a Bezout type inequality (joint work with I. Soprunov and A. Zvavitch), *Adv. Math.*, 357 (2019), 106789, 24 pp.
- 16 Functions with isotropic sections (joint work with I. Purnaras), *Trans. Amer. Math. Soc.* 374 (2021), no. 4, 3007-3024.
- 17 On a non-homogeneous version of a problem of Firey., *Math. Ann.*, 31 (2022), 1059-1090.
- 18 A non-existence result for the L_p -Minkowski problem, *Proc. Amer. Math. Soc.* (accepted for publication).
- 19 On a j -Santaló conjecture (joint work with P. Kalantzopoulos), *Geom. Dedicata*, 217 (article # 91) (2023).
- 20 Uniqueness when the L_p curvature is close to be a constant for $p \in [0, 1)$ (joint work with Károly Böröczky), 2023 (preprint).

CONFERENCES
AND
WORKSHOPS

TALKS

- On a j -Santaló conjecture, "Convex geometry - Analytic aspects", Cortona (Italy), 25th -30th June 2023.
- On a non-homogeneous version of Firey's problem, Analysis Winter Meeting, December 23, 2019, Aristotle University of Thessaloniki, Greece.
- Constant parts of a function via isotropicity of its sections, "Asymptotic Geometric Analysis IV", July 1-6, 2019, Euler International Mathematical Institute, Saint-Petersburg, Russia.
- Constant parts of a function via isotropicity of its sections, "Convex Geometry and its applications", December 9-15, 2018, Mathematisches Forschungsinstitut Oberwolfach, Germany.
- Wulff shapes and a characterization of simplices via a Bezout type inequality, First Congress of Greek Mathematicians (Analysis Session), June 25-30, 2018, Athens, Greece.
- Star bodies with completely symmetric sections, "Recent Advances in Discrete and Analytic Aspects of Convexity", May 21-26, 2017, Banff International Research Station, Alberta, Canada.
- Characterization of simplices via the Bezout inequality for mixed volumes, "Perspectives in Integral Geometry", May 30-June 3, 2016, University of Georgia, Athens, GA, USA.
- Characterization of simplices via the Bezout inequality for mixed volumes, "Conference on Functional Analysis in Honour of Nicole Tomczak-Jaegermann", May 16-20, 2016, University of Alberta, Edmonton, Alberta, Canada.
- On the equivalence between two problems of asymmetry on convex bodies, Special session on "Convexity and Harmonic Analysis", April 16-17, 2016, AMS Sectional Meeting at North Dakota State

University in Fargo, ND, USA.

Iterations of the projection body operator and a remark on Petty’s conjectured projection inequality, “Convex Geometry and its Applications”, December 6-12, 2015, Mathematisches Forschungsinstitut Oberwolfach, Germany.

Iterations of the projection body operator and a remark on Petty’s conjectured projection inequality, “Analytic and Probabilistic Techniques in Modern Convex Geometry”, November 7-9, 2015, University of Missouri, Columbia, MO, USA.

Remarks on the conjectured log-Brunn-Minkowski inequality, “Geometric Tomography and Harmonic Analysis”, March 3-9, 2014, Banff International Research Center, Alberta, Canada.

Projection bodies of convex bodies, Special Session on “Convex Geometry and its Applications”, October 18-20, 2013, Fall Central Sectional Meeting, Washington University. St. Louis, MO, USA.

Volumes of projection bodies of some classes of convex bodies, 13th Pan-Hellenic Analysis Conference, May 2010, University of Ioannina, Greece.

Characterization of extremals for some functionals on convex bodies, 12th Pan-Hellenic Analysis Conference, May 2008, University of Athens, Greece.

PARTICIPATION WITHOUT PRESENTATION

“Convex Geometry and its applications”, Mathematisches Forschungsinstitut Oberwolfach December 12-18, 2021 (Due to COVID19, I decided to participate online).

“Conference in honor of Vitali Milman’s 80th birthday”, July 29-August 2, 2019, Tel Aviv and the Dead Sea, Israel.

AIM workshop, “Symmetry and convexity in geometric inequalities”, May 20-24, 2019, American Institute of Mathematics, San Jose, CA, USA.

Informal Analysis Seminar, April 7-9, 2018, Kent State University, Kent, OH, USA.

Informal Analysis Seminar, April 30-May 1, 2016, Kent State University, Kent, OH, USA.

Informal Analysis Seminar, November 14-15, 2015, Kent State University, Kent, OH, USA.

CBMS Regional Conference in the Mathematical Sciences- “Introduction to the Theory of Valuations and Convex Sets”, August 10-15, 2015, Kent State University, Kent, OH, USA.

Informal Analysis and Probability Seminar, October 17-19, 2014, University of Michigan, Ann Arbor, MI, USA.

ISF Workshop on “Interactions between Asymptotic Geometric Analysis and Mathematical Physics”, Eilat and Technion, Israel, May 3-10, 2012.

“Phenomena in high dimensions”, 25-29 June 2007, Samos, Greece.

“Algebraic and Geometric Combinatorics”, July 2006, Anogia, Crete, Greece.

INVITED SEMINAR TALKS AND SHORT VISITS

On a j -Santaló conjecture, Harmonic Analysis Seminar, University of California Irvine, 2022 (online).

A non-existence result for the L_p -Minkowski problem, Asymptotic Geometric Analysis (AGA) seminar, 2021 (online).

A non-existence result for the L_p -Minkowski problem, Research seminars Analysis & Geometry (A & G) joint with EPFL and Dynamical Systems & Mathematical Physics (DS & MP), University of Jena, Jena, Germany, 2021.

On a non homogeneous version of a problem of Firey, privatissimum (Convex and Discrete Geometry and Geometric Analysis), TU Wien, Vienna, Austria, 2020 (online).

Wulff shapes and a characterization of simplices via a Bezout type inequality, April 2018, Analysis

and Probability seminar, Case Western University, Cleveland, OH, USA.

On Petty's and Schneider's problems for the volume of projection bodies, February 2017, Ohio University, Athens, OH, USA.

More on logarithmic sums of convex bodies, Analysis seminar, November 2015, Georgia Institute of Technology, Atlanta, GA, USA.

On the equivalence between two problems of asymmetry on convex bodies, October 2014, Measure theory seminar, Kent State University, OH, USA.

More on logarithmic sums of convex bodies, October 2014, Colloquium, Kent State University, OH, USA.

On the shape of a convex body with respect to its second projection body, September 2014, Analysis Seminar, University of Missouri, Columbia, MO, USA.

More on logarithmic sums of convex bodies, September 2014, Colloquium, University of Missouri, Columbia, MO, USA.

Remarks on the conjectured log-Brunn-Minkowski inequality, April 2014, Colloquium, NYU Polytechnic School of Engineering, New York, NY, USA.

STUDENTS

2019-2020 Nestoras Karasavvaidis (Masters student).

2023- Lampros Athanasopoulos (Masters student).

2023- Konstantinos Patsalos (PhD student).

EDITORIAL SERVICE

Referee for various journals/conference proceedings/grant proposals, such as "Discrete and Computational Geometry", "Journal of Functional Analysis", "Expositiones Mathematicae", "Colloquium Mathematicum", "Proceedings of the AMS", "GAFA Seminar", "Canadian Mathematical Bulletin", "The Journal of Geometric Analysis", "Journal of inequalities and applications", "IMRN", "Mediterranean Journal of Mathematics", "Mathematics MDPI", "Symmetry", "The Second International Conference on Physics, Mathematics and Statistics (ICPMS2019)", "Geometriae Dedicata", "Mathematische Annalen", "Collectanea Mathematica", "Hacetatepe Journal of Mathematics and Statistics", "Advances in Mathematics", "Journal of Differential Geometry", "the Israeli Science Foundation (ISF).

Served as reviewer for "Mathematical Reviews" (MATHSCINET) and for "zbMATH".