

Arielle Leitner
CURRICULUM VITAE

CONTACT INFORMATION	Mathematics Unit Fikus Building Afeka College of Engineering Tel Aviv, Israel	<i>E-mail:</i> ArielleL@afeka.ac.il <i>WWW:</i> http://www.wisdom.weizmann.ac.il/~arielle/ <i>WWW:</i> https://www.afeka.ac.il/faculty/arielle-leitner/
RESEARCH INTERESTS	<ul style="list-style-type: none">• Geometric Structures, Geometric Transitions, and Convex Projective Structures• Chabauty spaces• Symmetric Spaces, Buildings, and Compactifications• Coarse Geometry and Coarse Groups• Dessin d'Enfant• Quadratic Forms, Brauer Groups, and Milnor K-theory in odd characteristic	
EMPLOYMENT	Lecturer Afeka College of Engineering Senior Postdoctoral Fellow Weizmann Institute of Science Postdoctoral Fellow, Technion, Israel Institute of Technology Teaching Assistant, UC Santa Barbara Graduate Student Researcher, UC Santa Barbara Graduate Student Researcher, ICERM: Institute for Computational and Experimental Research in Mathematics	Oct 2021- present Sept 2018- Sept 2021 Sept 2015- Sept 2018 Sept 2009- June 2015 Spring 2013, Winter 2014, Spring 2014, Winter 2015 Fall 2013
EDUCATION	University of California, Santa Barbara, Santa Barbara, CA USA Ph.D., Mathematics <ul style="list-style-type: none">• Thesis: <i>Geometric Transitions of the Cartan Subgroup in $SL(n, \mathbb{R})$</i>• Advisor: Daryl Cooper Certificate in College and University Teaching M.A., Mathematics California State University, Chico, Chico, CA USA B.S., Mathematics	June 2015 April 2014 June 2011 May 2009
FELLOWSHIPS, AWARDS, & GRANTS	Weizmann Institute of Science <ul style="list-style-type: none">• Weizmann Emergency Postdoctoral Fellowship for COVID19• Senior Postdoctoral Fellowship Technion Israel Institute of Technology <ul style="list-style-type: none">• Returning Scientists Grant from Israeli Government• Lady Davis Postdoctoral Fellowship at Hebrew University (declined)• GEAR Travel Grant to Italy• GEAR Travel Grant to Singapore• GEAR Travel Grant to Santa Barbara, California	November 2020 September 2018 Sept 2015, Sept 2016 Spring 2018 September 2017 June 2016 February 2016

University of California, Santa Barbara

- Graduate Merit Fellowship Summer 2012, 2014
- Campus Wide Teaching Assistant Award June 2012
- Mathematics Department Outstanding Teaching Assistant June 2014
- AWM Travel Grant January 2015
- University of California Chancellor's Postdoctoral Fellowship (declined) May 2015

California State University, Chico

- President's Scholarship May 2006
- Floyd L. English Scholarship May 2006, May 2007
- Rawlins Award May 2008
- Research and Creativity Grant Nov. 2007, Nov. 2008

PUBLICATIONS & PREPRINTS

- "Chabauty Limits of Groups of Involutions in $SL(2, F)$ ", submitted, joint with Corina Ciobotaru <https://arxiv.org/pdf/2208.12247.pdf>
- "An Invitation to Coarse Groups" submitted, joint with F. Vigolo <https://arxiv.org/pdf/2203.08591.pdf>
- "On the Chabauty space of $PSL(2, \mathbb{R})$, I: lattices and grafting." submitted, joint with I. Biringer and N. Lazarovich <https://arxiv.org/pdf/2110.14401.pdf>
- "The Moduli Space of Marked Generalized Cusps in Real Projective Manifolds." joint with S. Ballas and D. Cooper. *J. Conf. Dynam.*, 26 (2022) 111-164 <https://arxiv.org/pdf/2008.09553.pdf>
- "Local Limits of Connected Subgroups of $SL(3, \mathbb{R})$ " joint with N. Lazarovich. *Comptes Rendus. Mathématique* 359.4 (2021): 363-376. <https://arxiv.org/pdf/1911.09491.pdf>
- "Chabauty Limits of Diagonal Cartan Subgroups of $SL(n, \mathbb{Q}_p)$ ", joint with C. Ciobotaru and A. Valette. *J. Algebra* 595 (2022) : 69-104 <https://arxiv.org/pdf/1711.04864.pdf>
- "Chabauty Limits of Parahoric Subgroups of $SL(n, \mathbb{Q}_p)$ ", joint with C. Ciobotaru, *Expositiones Mathematicae* (2021)
- "Generalized Cusps on Convex Projective Manifolds: Classification", joint with S. Ballas and D. Cooper. *Journal of Topology* 13.4 (2020): 1455-1496. <https://arxiv.org/pdf/1710.03132.pdf>
- "Almost Regular Dessins d'Enfants on a Torus and a Sphere" joint with J. König and D. Neftin, *Topology and Applications* 243 (2018), 78-99.
- "A Classification of subgroups of $SL(4, \mathbb{R})$ Isomorphic to \mathbb{R}^3 and Generalized Cusps in Projective 3 Manifolds" *Topology and its Applications* 206, (2016), 241-254
- "Limits Under Conjugacy of the Diagonal Subgroup in $SL_n(\mathbb{R})$ " *Proc. Amer. Math. Soc.* 144 (2016) 3243-3254.
- "Conjugacy Limits of the Cartan Subgroup in $SL_3(\mathbb{R})$ " *Geom Dedicata* (2016) 180: 135.
- "Universal Cycles of Restricted Classes of Words" with Anant Godbole, *Discrete Math.* 310 (2010), no. 23.

INVITED TALKS

- Afeka Research Conference, Daniel Hotel, Herzliya September 2022
- Buildings in Aarhus, Denmark September 2022
- University of Haifa Algebra Seminar December 2021
- Israel Mathematical Union, Geometry and Analysis Session, Ben Gurion University, Ber Sheva, Israel July 2021
- Afeka College Colloquium, Tel Aviv Israel May 2021
- Weizmann Midrasha, Rehovot, Israel May 2021
- University of Bristol, England, Geometry and Topology seminar March 2021

Institute of Science and Technology, Austria, Algebra Seminar	December 2020
University of Haifa Colloquium	December 2020
Tel Aviv University Real and Complex Geometry Seminar	November 2020
Ben Gurion University Probability and Ergodic Theory Seminar	November 2020
Nearly Carbon Neutral Geometric Topology ncngt.org	June 2020
5th Israeli Conference for Women in Mathematics, Netanya, Israel	March 2020
University of California, Santa Barbara, Topology Seminar	February 2020
Bar Ilan University Algebra seminar	December 2019
Technion Geometry and Topology seminar, Haifa Israel	December 2019
University of Haifa Geometry and Topology seminar, Haifa Israel	December 2019
National University of Singapore Topology Seminar, Singapore.	September 2019
Perspectives on Convex Projective Geometry Mini Course , Sete, France.	June 2019
Conference on Geometry and Applications, Ort Braude Academic College, Karmiel, Israel.	December 2018
University of Haifa, Algebra Seminar, Haifa, Israel.	
Math Club, Technion, Haifa, Israel.	May 2018
Academic College of Tel Aviv-Yafo, Math Colloquium. Yafo, Israel.	March 2018
Holon Institute of Technology, Mathematics Colloquium. Holon, Israel.	February 2018
ETHZ Geometry Seminar, Zurich, Switzerland	February 2018
Fribourg Geometry Seminar, Fribourg, Switzerland.	February 2018
Technion Topology Seminar, Haifa Israel	January 2018
Ort Braude College of Engineering, Carmiel, Israel.	November 2017
Afeka College of Engineering, Tel Aviv, Israel.	November 2017
University of Haifa, Colloquium. Haifa, Israel.	November 2017
Tel Aviv University, Field Arithmetic Seminar. Tel Aviv, Israel	October 2017
Israel Mathematical Union, Acre, Israel.	May 2017
Department Lunch Seminar, Technion, Haifa, Israel.	March 2017
Asymptotic Geometry of Groups and Spaces, Heidelberg, Germany.	February 2017
University Paris Sud, Orsay, France.	February 2017
Institute des Hautes Etudes Scientifiques, Bures sur Yvette, France.	February 2017
Ben Gurion Topology Seminar, Ber Sheva, Israel.	January 2017
Midrasha Mathematica, Weizmann Institute, Rehovot, Israel.	Decemeber 2016
Hebrew University Topology Seminar, Jerusalem, Israel.	December 2016
Bar Ilan Topology Seminar, Bne Berak, Israel.	November 2016
Technion Geometry and Topology Seminar, Haifa, Israel.	November 2016
Current Trends for Spectral Data of Higgs Bundles II, Simons Center for Geometry and Physics, Stony Brook, NY.	June 2016
Young Action Now, Weizmann Institute of Science, Rehovot, Israel.	April 2016
Geometry and Topology Seminar, University of Haifa, Israel.	December 2015
Geometry and Topology Seminar, and Groups, Dynamics and Related Topics Seminar. Technion, Israel Institute of Technology, Haifa Israel.	November 2015
Korean Institute for Advanced Study, Seoul, Korea.	October 2015
Tel Aviv University, Tel Aviv, Israel.	September 2015
California State University, Chico, Colloquium. Chico, CA.	March 2015
Arizona State University Geometry Seminar, Phoenix, AZ.	February 2015
Pitzer College Topology Seminar, Claremont, CA.	October 2014
Technion- Israel Institute of Technology, Haifa, Israel.	July 2014
California State University, Chico, Math Colloquium, Chico, CA.	March 2014
Algebra Seminar, Bar Ilan University, Bene Berak, Israel	August 2011
Ph.D. Student Seminar, Tel Aviv Univeristy, Tel Aviv, Israel	July 2009

TALKS	Joint Mathematics Meetings, San Antonio, TX.	January 2015	
	UCSB Topology Seminar, Santa Barbara, CA.	October 2014	
	GEAR Junior Retreat , University of Michigan, Ann Arbor, MI.	May 2014	
	Graduate Student Geometry and Topology Conference, University of Texas, Austin.	April 2014	
	UCSB Discrete Geometry Seminar, Santa Barbara, CA.	January 2014	
	ICERM Graduate Student and Postdoc Seminar, Providence, RI.	October 2013	
	UCSB Topology Seminar, Santa Barbara, CA.	May 2013	
	Under-represented Students in Topology and Algebra Research Symposium, Purdue University, IN.	April 2013	
	3rd Annual Southern California Women in Mathematics Symposium, Pomona College, CA.	November 2010	
	CSU, Chico Math Seminar, Chico, CA.	May 2009	
	Joint Math Meetings, Washington D.C.	January 2009	
	Nebraska Conference for Undergraduate Women in Mathematics (NCUWM), Lincoln, Nebraska.	February 2008	
	Joint Math Meetings, San Diego, CA.	January 2008	
	Center for Excellence in Learning and Teaching Conference, California State University, Chico.	October 2007	
	CONFERENCES ATTENDED	Nearly Carbon Neutral Geometric Topology, online	September 2022
		Israel Mathematical Union, Ber Sheva, Israel	September 2022
		Ohalo Seminar on Group Actions, Geometry and Dynamics, Kinneret, Israel	July 2022
Burger's Prime, Zurich, Switzerland		June 2022	
Nearly Carbon Neutral Geometric Topology, online		June 2021	
Interface of Low Dimensional Group Actions and Geometric Structures, hosted by NUS Singapore (online)		January 2021	
Nearly Carbon Neutral Geometric Topology, online		June 2020	
5th Israeli Conference for Women in Mathematics, Netanya, Israel		March 2020	
Combinatorial and Algebraic Aspects of Geometric Structures, Chiang Mai University, Thailand.		July 2019	
Perspectives in Convex Projective Geometry, Sete, France.		June 2019	
Geometric Structures in Nice, University of Nice, France.		January 2019	
Representation Varieties and Geometric Structures in Low Dimensions. Warwick, England.		July 2018	
Non- Positively Curved Groups on the Mediteranean. Nahsholim, Israel.		May 2018	
Moduli Spaces, Ventotene, Italy.		September 2017	
GEAR senior retreat, Stanford, CA, USA		August 2017	
Geometric Topology in Cortona, Cortona, Italy.		June 2017	
Israel Mathematical Union, Acre, Israel.		May 2017	
Asymptotic Geometry of Groups and Spaces, Heidelberg, Germany.		February 2017	
Workshop on Group Theory (Juhasz Birthday). Technion, Haifa, Israel.		January 2017	
60 Faces to Groups (Lubotzky Birthday). Institute of Advanced Study, Hebrew University, Jerusalem, Israel.		November 2016	
Geometry, Topology, and Dynamics of Moduli Spaces. National University of Singapore, Singapore.		August 2016	
Algebraic, Topological, and Combinatorial Approaches to $\text{Aut}(F_n)$. Technion. Haifa, Israel.		July 2016	
New Perspectives on Higgs Bundles, Branes, and Quantization. Simons Center for Geometry and Physics, Stony Brook, NY.		June 2016	
Current Trends in for Spectral Data of Higgs Bundles. Simons Center for Geometry and Physics, Stony Brook, NY.		June 2016	
Advanced School on Geometric Group Theory and Low Dimensional Topology, International Center for Theoretical Physics, Trieste, Italy.		May 2016	

Young Geometric Group Theory V. Karlsruhe, Germany. February 2016
 Workshop on Geometric Structures, Hitchin Components, and Representation
 Varieties. Korea Institute for Advanced Study, Seoul, Korea. October 2015
 Ergodic Theory, Fractals, and Groups. Israel Institute for Advanced Study, Jerusalem,
 Israel. October 2015
 First Israeli Conference for Women in Mathematics. Tel Aviv University, Tel Aviv,
 Israel. August 2015
 Classical and Quantum Hyperbolic Geometry and Topology (in honor of Francis
 Bonahon). Orsay, France. July 2015
 Generalizations of Symmetric Spaces. Nahsholim, Israel. June 2015
 Groups, Geometries and 3-Manifolds (Cooperfest). Berkeley, CA. May 2015
 Dynamics on Moduli Space. MSRI, Berkeley, CA. April 2015
 Introductory Workshop: Dynamics on Moduli Spaces of Geometric Structures. MSRI,
 Berkeley, CA. January 2015
 Connections for Women: Dynamics on Moduli Spaces of Geometric Structures. MSRI,
 Berkeley, CA. January 2015
 "What's Next?" The Mathematical Legacy of Bill Thurston. Cornell University,
 Ithaca, NY. June 2014
 GEAR Junior Retreat, University of Michigan, Ann Arbor. May 2014
 Graduate Student Geometry and Topology Conference, University of Texas, Austin.
 April 2014
 Workshop on Inquiry Based Learning, Westmont College, Santa Barbara, CA.
 March 2014
 ICERM Semester Workshop on Geometric Structures in Low Dimensional Dynamics,
 ICERM, Providence, RI. November 2013
 ICERM Semester Workshop on Geometry, Topology, and Group Theory, Informed by
 Experiment, ICERM, Providence, RI. October 2013
 ICERM Semester Workshop on Exotic Geometric Structures, ICERM, Providence, RI.
 September 2013
 Under-represented Students in Topology and Algebra Research Symposium, Purdue
 University, IN. April 2013
 10th Pingree Park Brauer Groups Meeting, Pingree Park, Colorado, August 2012
 19th Amitsur Symposium, Tel Aviv, Israel, June 2012
 3rd Annual Women in Mathematics Symposium, Claremont-McKenna College, CA,
 November 2010
 Joint Mathematics Meetings: 2008, 2009, 2013, 2015
 Mathfest: 2007, 2008

SERVICE, Organized meeting of Action Now! at Afeka College of Engineering November 2022
 MENTORING, & Referee for Memoirs of the AMS since September 2022
 LEADERSHIP Reviewer for MathSciNet since September 2021
 Session Organizer at Nearly Carbon Neutral Geometry and Topology Conference
 (NCNGT) June 2021
 Postdoc Representative on Weizmann Committee for Gender Equality 2021
 Co-organizer for Midrasha at Weizmann (research seminar) 2019 -2021
 Co-Organizer for Weizmann Women in Mathematics Forum 2018 -2021
 Duties: Organize bi-weekly soft skills workshops and invite speakers monthly
 Refree for SIAM Journal of Discrete Math since 2019
 Refree for Graphs and Combinatorics since 2017
 Founded Association for Women in Mathematics at the Technion
 (WoMathTech) Oct 2016- Sept 2018
 Duties: Organize weekly exercise sessions and invited female speaker monthly
 TA for Fanny Kassel's Mini Course "Geometric Structures and Representations of
 Discrete Groups " at ICTP May 2016

	Duties: Help write exercises and lead problem sessions	
	Helped found first Israel Student Chapter of the Association of Women in Mathematics (AWM)	August 2015
	TA for Yael Algom Kfir's mini course on $Out(F_n)$ at the first conference for Israeli Women in Mathematics	August 2015
	Conference Organizer for Cooperfest: Groups Geometries and 3-Manifolds	2015
	Organized Student Algebra Seminar, UCSB	2011–2013
	Organized Hypatian Seminar , UCSB	2010-2015
	Duties: organized panels/talks on: choosing an adviser, making a website, passing qualifying exams, etc, and hosted an invited female speaker quarterly.	
	Organized Sessions at Math Circle , UCSB	2011-2015
	Mentor in STEEM (program for under privileged transfer students), UCSB	2011-2012
	Organized mentor network for incoming first years (and mentored), UCSB Math	2011-2015
	Member of Women in Science and Engineering (WiSE)	2009-2015
	Mentee/mentor in AWM mentor network	2007- present
INSTRUCTIONAL DEVELOPMENT	Evaluated videos for Online Mathlab , UCSB	Summer 2011
	Ran math department TA training	Fall 2012
	Workshop host at campus wide TA training, UC Santa Barbara	Fall 2012
	Peer mentor (organizer) in Lead Teaching Assistant Institute	Summer 2012
	Peer mentor (organizer) for Summer Teaching Institute for Associates	Summer 2013
UNDERGRADUATE RESEARCH	Summer Projects in Mathematics at the Technion	September 2016, 2018
	Mentored week long summer research project on Dessin d'Enfants	
TEACHING	Afeka College of Engineering (Lecturer)	
	• Calculus 2	Spring 2022
	• Linear Algebra	Fall 2021, Spring 2022, Fall 2022
	• Calculus 1	Fall 2021, Fall 2022
	Technion (Instructor of Record)	
	• Linear Algebra	Winter 2017
	• Calculus 2	Spring 2018
	Technion (Teaching Assistant)	
	• Linear Algebra, Instructor Adi Wolf	Spring 2017
	UCSB (Instructor of Record)	
	• Math 3B: Integral Calculus for Majors	Summer 2013
	• Math 3A : Differential Calculus for Majors	Summer 2014
	UCSB (Course Facillitator)	
	• Math 100AB: Math for Future Elementary School Teachers, Taught with Bill Jacob using inquiry based methods.	Winter and Spring 2012.
	• Math 501: Teaching Assistant Training, Taught with Chuck Ackemann and Maree Afaga-Jaramillo. Emphasis on active teaching techniques.	Fall 2012.
	• Graduate Peer Facilitator, Summer Teaching Institute for Associates	Summer 2014
	Duties: Gave feedback online for course syllabi/ exams/ teaching statements, and ran teaching workshops for graduate student instructors	
	UCSB (Teaching Assistant)	
	• Math 3A Diff. Calc. for majors, Prof. Chuck Akemann,	Fall 2009

- Math 34A Diff. Calc. for life and social sciences, Prof. Daryl Cooper, Winter 2010
- Math 3A, Instructor Julia Galstad, Spring 2010
- Math 3B Integral Calc. for majors, Instructor Rob Ackermann, Summer 2010
- Math 8 Introduction to Proofs, Dr. Ryan Ottman, Fall 2010
- Math 3B, Dr. Karel Casteels, Winter 2011
- Math 8, Prof. Adbesi Agboola, Spring 2011
- Math 100A, Dr. Kyungheee Moon, Summer 2011
- Math 100B, Instructor Sonja Mitchell, Summer 2011
- Math 111A, Group Theory, Prof. Bill Jacob, Fall 2011
- Math 108A, Linear Algebra with proofs, Prof Mihai Putinar, Fall 2012
- Math 4BI, Inquiry Based Differential Equations, Dr Elizabeth Thoren, Winter 2013
- Math 4AI, Inquiry Based Linear Algebra, Dr Elizabeth Thoren, Fall 2014
- Math 3B, Integral Calc. for majors, Profs Agboola and Akemann Spring 2015

PERSONAL

Languages: English, French, Hebrew

Computer Skills: SAGE, GP PARI, GAP, Mathematica, HTML, LaTeX

Citizenship: USA, Israel