

Karim Adiprasito

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Personal Information

Name **Karim Alexander Adiprasito**
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Higher Education

2007–2010 **Diploma in Mathematics**, *Technische Universität Dortmund*, “The curvature of typical convex bodies”, Advisor T. Zamfirescu.
2010–2013 **Ph.D. in Mathematics**, *Freie Universität Berlin*, “Methods from Differential Geometry in Polytope Theory”, Advisor **Günter M. Ziegler** (FU Berlin), External referee **Gil Kalai** (Hebrew University Jerusalem).

Temporary Employment and long-term visits

2008–2009 **International Visiting Student**, *Indian Institute of Technology Bombay*, Mumbai, India.
2010–2013 **Ph.D. studies**, *Freie Universität Berlin*, Berlin, Germany.
Winter 2011/'12 **Guest Researcher**, *Hebrew University Jerusalem*, Jerusalem, Israel.
2013–2014 **EPDI postdoctoral fellow**, *Institut des Hautes Études Scientifiques*, Bures-sur-Yvette, France.
2014–2015 **Minerva fellow**, *Hebrew University Jerusalem*, Jerusalem, Israel.
Spring Term 2015 **Member**, *Institute of Advanced Study*, Princeton, USA.
Spring Term 2016 **Member**, *Institute of Advanced Study*, Princeton, USA.

Appointments

2015–2016 **Assistant Professor**, *Hebrew University of Jerusalem*, Jerusalem, Israel.
2016– **Associate Professor**, *Hebrew University of Jerusalem*, Jerusalem, Israel.
2017– **Professor (I spend summer semesters here)**, *University of Leipzig*, Leipzig, Germany.

Other: Scholarships and Awards

2008 **Rotary International fellowship**, Fellowship for academic year abroad, used to visit IIT Bombay.
2010 **DFG fellowship**, PhD fellowship.
2013 **EPDI/IPDE Laureate**, Postdoctoral Fellowship.
2014 **Minerva Fellow of the Max Planck Society**, Postdoctoral Fellowship.
2014 **Ernst-Reuter Prize**, for best doctoral dissertation at FU Berlin in year 2013.
2015 **European Prize in Combinatorics**, Eurocomb 2015.
2016 **ISF Friedberg Prize**, *Addition to ISF grant*, for outstanding grant applications in the sciences and medicine.
2017 **Klachky Prize for the advancement of the Frontiers of Science**, *Hebrew University of Jerusalem*.

External Research Grants

2016–2020 **ISF Individual Research Grant**, “Combinatorics, analysis and geometry”, PI Karim Adiprasito, 1,083,420 NIS.
2016–2021 **ERC Starting Grant**, “Combinatorics with an analytic conjecture”, PI Karim Adiprasito, 1,337,200 Euro.

Teaching: Students

- 2015–
2016– **Ohad Livne Bar-On**, *MSc Student in Tel Aviv University, in progress.*
Or Raz, *MSc Student, in progress.*

Teaching: Postdocs

- 2015–2016 **Zuzana Patáková.**
2015–2016 **Pavel Paták.**

Teaching at Hebrew University

- Fall 2015/16 **Convex Polytopes**, with *Gil Kalai*, for graduate students.
Fall 2015/16 **Combinatorial and continuous geometries**, for graduate students.
Spring 2016 **Convex Polytopes, II**, with *Gil Kalai*, for graduate students.
Spring 2016 **Topics in Combinatorics**, *Seminar*, for graduate students and undergraduates.
Spring 2016 **The combinatorial Hopf Conjecture**, *Seminar*, with *Eran Nevo*, for graduate students.
Fall 2016 **Topics in differential geometry**, *mandatory graduate course.*

Teaching before employment at Hebrew University

- 2008/'09 **An introduction to Nevanlinna theory and diophantine approximation**, *IIT Bombay*, Course for graduate students, organized jointly with U.K. Anandavardhanan.
2011/'12 **Combinatorial Topology**, *Hebrew University Jerusalem*, Course on current research topics, organized jointly with N. Linial, A. Samorodnitsky.
2012 **Discrete Morse Theory and Commutative Algebra**, *Institut Mittag Leffler*, Summer school.
2014/2015 **Configuration spaces and subspace arrangements**, *Hebrew University Jerusalem, Israel*, Course for graduate students and advanced undergraduates.
2015 **Framework rigidity in geometry, combinatorics and algebra**, *Hebrew University Jerusalem, Israel*, Course for graduate students and advanced undergraduates, organized jointly with Eran Nevo.

Weekly seminars

- Co-organizer **Topology and Geometry Seminar**, *Hebrew University of Jerusalem.*
Co-organizer **Combinatorics Seminar**, *Hebrew University of Jerusalem.*

Invited Conference and Colloquium Talks

- 2009 **Large curvature on typical convex sets**, *11th International Conference on Discrete Mathematics*, TU Dortmund.
2011 **Collapsibility of CAT(0)-complexes**, *MDS Colloquium*, Humboldt Universität Berlin.
2011 **Metric Geometry and Collapsibility**, *Geometric Group Theory conference and Summer School*, MRCC Będlewo.
2011 **Metric Geometry and Collapsibility**, *DMV Jahrestagung 2011 (annual meeting of the German Math Society)*, Universität Köln.
2012 **Enumerative combinatorics of manifolds**, *Conference Discrete Mathematics: Methods, Challenges and Applications*, Eilat, Israel.
2012 **Convexity, Collapsibility and Subdivisions**, *Workshop "Triangulations"*, Mathematisches Forschungsinstitut Oberwolfach.
2012 **The Hirsch conjecture for flag polytopes and manifolds**, *Workshop "Triangulations"*, Mathematisches Forschungsinstitut Oberwolfach.
2012 **On polytopes with low-dimensional realization space**, *Workshop "Discrete Differential Geometry"*, Mathematisches Forschungsinstitut Oberwolfach.
2012 **On polytopes with low-dimensional realization space**, *Institut Mittag Leffler, IML*, Stockholm.
2012 **Many high-dimensional polytopes with small realization space**, *MDS Colloquium*, Freie Universität Berlin.
2013 **Minimal CW-models for complements of 2-arrangements**, *Conference on Topology and its Applications*, MRCC Będlewo.

- 2013 **Minimal CW-models for complements of 2-arrangements**, *Colloquium Talk*, Mathematical Institute of the Romanian Academy.
- 2013 **Metric geometry and the Hirsch conjecture**, *Conference on Discrete Mathematics, Discrete Geometry and Alexandrov surfaces*, Universtiy of Bucharest.
- 2013 **Minimal CW-models for complements of 2-arrangements**, *INDAM Workshop Combinatorial Methods in Algebra and Topology*, Cortona, Italy.
- 2013 **Differential geometric aspects and techniques of combinatorics**, *Colloquium*, IHÉS.
- 2013 **New constructions for polytopes**, *Workshop on Universality of Moduli Spaces*, Hausdorff Institute for Mathematics Bonn.
- 2014 **Combinatorial Lefschetz Theorems**, *Mathematics Colloquium*, Ben-Gurion University of the Negev.
- 2014 **Crystallization principles in combinatorics and polytope theory**, *2nd Elbe Sandstones Workshop on topological methods*, Rynartice, Czech Republic.
- 2014 **Recent Developments in Stanley–Reisner Theory**, *IST Austria*, Klosterneuburg, Austria, Invited lecture series.
- 2014 **Some remarks on the topology and geometry of polytopes**, *Workshop “Discrete Geometry”*, Mathematisches Forschungsinstitut Oberwolfach.
- 2014 **Many projectively unique polytopes**, *Conference on occasion of Tudor Zamfirescu’s 70th Birthday*, Mulhouse, France, Lecture Series.
- 2014 **Some remarks on the combinatorics and geometry of simplicial polytopes**, *Colloquium Talk*, UCLA.
- 2014 **Some remarks on the combinatorics and geometry of simplicial polytopes**, *Colloquium Talk*, Stanford University.
- 2014 **Toric chordality**, *Workshop “Discrete, computational and algebraic topology”*, Kopenhagen, Denmark.
- 2014 **Filtered geometric lattices and tropical Lefschetz Theorems**, *Workshop “Tropical Geometry”*, Saas Fee, Switzerland.
- 2014 **Combinatorial approaches to complex algebraic geometry**, *Colloquium Talk*, Hebrew University.
- 2015 **Some interesting aspects of realization spaces of polytopes**, *Colloquium Talk*, Courant Institute.
- 2015 **Rota’s conjecture for c-arrangements**, *Opening lecture at workshop “Geometric and algebraic combinatorics”*, Mathematisches Forschungsinstitut Oberwolfach.
- 2015 **Toric chordality via the Weil–McMullen Lefschetz Map**, *Colloquium Talk*, University of Miami.
- 2015 **Toric chordality via the Weil–McMullen Lefschetz Map**, *Colloquium Talk*, Cornell University.
- 2015 **Rigidity theory, propagation phenomena and applications**, *ERC workshop on “Discrete models in Geometry and Topology”*, Berlin, Germany.
- 2015 **Log-concavity of Whitney numbers**, *Workshop on “Nonlinear algebra”*, Berlin, Germany.
- 2015 **Combinatorial Hodge Theory**, *Colloquium Talk*, Universität Leipzig.
- 2015 **Some new combinatorial methods for arrangement complements and matroids**, *Conference on “Combinatorial Constructions in Topology”*, Regina, Canada.
- 2015 **Combinatorial Hodge Theory**, *Prize-winning lecture at Eurocomb 2015*, Bergen, Norway.
- 2015 **Log-concavity of Whitney numbers**, *Conference “Discrete Geometry”*, MIPT, Moscow.
- 2015 **Combinatorial Hodge Theory I, II**, *Two talks at workshop “Tropical geometry in the alps”*, Les Diablerets, Switzerland.
- 2016 **Hodge theory in combinatorics**, *Presenting the paper “Hodge theory for combinatorial geometries”*, Georgia Institute of Technology.
- 2016 **Hodge theory in combinatorics**, *London Colloquium in combinatorics*, QMUL and LSE.
- 2016 **Hodge theory in combinatorics**, *Cornell Topology Days*, Cornell University.
- 2016 **Hodge theory in combinatorics**, *30 years of Discrete Geometry*, Monte Verita, Ascona, Switzerland.
- 2016 **Hodge theory in combinatorics**, *Colloquium*, Renyi Institute, Budapest.
- 2016 **Connectivity and the subadditivity problem**, *Topology and Geometry in a Discrete Setting*, ICERM, Brown University.
- 2016 **Zeckhauser’s Law in algebraic geometry**, *Ulrich Brehm Birthday Symposium*, Technische Universität Dresden.

Invited talks in Research Seminars

- 2010 **TU Dortmund, TU Berlin.**
- 2011 **UC Berkeley, Ben-Gurion University, Weizmann Institute, MRCC Będlewo.**
- 2012 **Hebrew University of Jerusalem, UCLA, Institut Mittag Leffler, Hebrew University of Jerusalem, Ben-Gurion University.**
- 2013 **Cornell, MRCC Będlewo, University of Bucharest, Max Planck Institute Bonn, Universität Bremen, KTH Stockholm.**
- 2014 **Hebrew University of Jerusalem, IHÉS, Ecole Polytechnique, Ecole Normale Supérieure, Marseille, UCLA, Technion, Hebrew University of Jerusalem, Courant Institute, Northeastern, UC Berkeley, Weizmann, Technion, Universität Bonn.**
- 2015 **UC Berkeley, IAS Princeton, MIT, NYU, University of Washington, FU Berlin, Hebrew University.**
- 2015 **NYU, Rutgers, IAS Princeton, Yale, Lausanne.**
- 2015 **IAS Princeton, NYU, Rutgers, MPI Leipzig, KTH Stockholm, University of Copenhagen.**

Organization

- Fall 2015 **Organizer, *Postdoc Seminar*, with Elon Lindenstrauss.**
- September 2016 **Organizer, *Undergraduate workshop for prospective graduate students in mathematics and physics at Hebrew University*, with Jonathan Breuer, Nadav Katz, Guy Ron.**
- 2016– **Organizer, *International graduate school for mathematics at the Hebrew University of Jerusalem*.**

Other: Service to the community

- Referee for **Duke Mathematical Journal, Inventiones Mathematicae, Mathematika, Israel Journal of Mathematics, Proceedings of the London Mathematical Society, Research in the Mathematical Sciences, Advances in Mathematics, Combinatorica, Discrete and Computational Geometry, JCTA, Discrete Mathematics, European Journal of Combinatorics, Electronic Journal of Combinatorics.**

September 21, 2017, Jerusalem, Israel