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# 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).

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## 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.

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## Appointments

2015–2016 **Assistant Professor**, *Hebrew University of Jerusalem*, Jerusalem, Israel.  
2016– **Associate Professor**, *Hebrew University of Jerusalem*, Jerusalem, Israel.  
2017– **Full Professor (adjunct)**, *University of Leipzig*, Leipzig, Germany.

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## 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*.

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## 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.

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### Teaching: Students

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

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### Teaching: Postdocs

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

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### 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.

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### 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.

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### Weekly seminars

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

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### 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.

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### 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, Universty 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.

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### 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*.

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### 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*.

March 2, 2017, Jerusalem, Israel