

# Avraham Aizenbud - CV

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## Employment (as a mathematician)

- 2016 - Associate Professor, Department of Mathematics, Weizmann Institute of Science.
- 2013 - 2016 Senior Scientist, Department of Mathematics, Weizmann Institute of Science.
- 2010 - 2013 C.L.E. Moore instructor, Department of Mathematics, Massachusetts Institute of Technology.

## Education

- 2006 - 2010 PhD in Mathematics in Weizmann Institute of Science (Supervisors: Prof. J. Bernstein, Prof. V. Berkovich, Thesis: "Gelfand pairs and Invariant Distributions").
- 2005 - 2006 M. Sc. in mathematics in Tel-Aviv University (Supervisor: Prof. J. Bernstein, Average 98)
- 2002 - 2005 Status of "Distinguished Student" in IDF. Research under supervision of Prof. J. Bernstein in Tel-Aviv University.
- 2001 - 2002 M. Sc. student of Mathematics in Tel-Aviv University (Supervisor: Prof. J. Bernstein). The studies were interrupted by the service in the IDF.
- 1997 - 2001 B. Sc. with honors in mathematics in Tel-Aviv University (Average 93, Studies were done under the Beno Arbel program during High School studies)
- 1995 - 2001 Matriculation certificate from "Shevah-Mofet high school, Tel-Aviv.

## Short Term Visits

- 2018 5-month program "Group Representation Theory and Applications" at the MSRI.
- 2012, 2014 2-month research group "Multiplicity Problems in Harmonic Analysis" at the Hausdorff Research Institute for Mathematics, Bonn, Germany.
- 2011 1-month at the Max Planck Institute for Mathematics, Bonn, Germany.
- 2009 1-month at the Max Planck Institute for Mathematics, Bonn, Germany.
- 2008 1-month at the Max Planck Institute for Mathematics, Bonn, Germany.
- 2007 3-month workshop "Representation theory, complex analysis and integral geometry" at the Hausdorff Research Institute for Mathematics and Max Planck Institute for Mathematics, Bonn, Germany.

## Military Service

- 2002 - 2005 Mandatory military service in the IDF. Algorithm designer in the military intelligence.

## Teaching Experience<sup>[1]</sup>

- 2013 - Teaching courses at Weizmann Institute of Science. (Algebraic geometry, Generalized Functions, Algebraic topology, Category theory, representation theory of p-adic groups)
- 2010 - 2013 Recitation leader at MIT. (ODE, multivariable calculus)
- 2007 Organizer of the scientific treasure hunt contest at Weizmann Institute of Science.
- 2007 Problem composer for the Mathematical Tournament of Schools at Weizmann Institute of Science.
- 2006 - 2007 Problem composer for the "Zuta" Olympiad for grades 7-9 at Weizmann Institute of Science.
- 2006 Mentor in the International Summer Science Institute at Weizmann Institute of Science. (Mini-course on Dirichlet theorem for distinguished high-school students)
- 2006 Teaching Assistant at the Department of Mathematics at Tel-Aviv University. (Differential geometry)
- 2002 Teaching Assistant at the Department of Mathematics at Tel-Aviv University. (Complex analysis and linear algebra)
- 2001 - 2002 Grader at the Department of Mathematics at Tel-Aviv University.

## Awards & Grants

- 2021 Erdős Prize
- 2020 Morris L. Levinson prize of the Scientific Council of the Weizmann institute of science.
- 2019 - 2023 BSF research grant "Higher aspects of counting points on schemes".
- 2019 - 2022 Minerva research grant "Induced spherical pairs".
- 2017 - 2021 ISF research grant "Invariant distributions and applications to representation theory".
- 2015 - 2016 The Dr. A. Edward Friedmann Career Development Chair in Mathematics.
- 2015 Levitzki Prize.
- 2014 - 2017 Minerva research grant "Topological vector spaces in representation theory".

- 2013 - 2017 BSF research grant "Representation Growth and Rational Singularities".
- 2013 - 2017 ISF research grant "Algebro-geometric analysis and applications in representation theory".
- 2013 - 2016 Alon Fellowship for young Israeli researchers.
- 2012 Clore prize, Weizmann Institute of Science.
- 2010 - 2012 NSF research grant "Representation theory of reductive groups over local fields".
- 2010 Rothschild Fellowship.
- 2010 J. F. Kennedy prize, Weizmann Institute of Science.
- 2002 Honors prize for M. Sc. students.
- 2001 Dean Distinction Prize.
- 2000 First Place in Tel-Aviv University Olympiad of Mathematics.
- 2000 Dean Distinction Prize.
- 1999 Distinction Prize for Beno Arbel program Students.
- 1998 First Place with Honors in the Mathematical Tournament of Towns.

### Conferences and colloquia Talks<sup>[2]</sup>

- 2021 Multiplicities in relative representation theory. IMU meeting.
- 2020 "Point-wise surjective presentations of stacks", Conference on representation theory and algebraic analysis in honor of Joseph Bernstein.
- 2014, 2020 Teaching Minicourses for IMO team - [Banach-Tarski theorem](#), [Dirichlet theorem](#).
- 2019 "WF-holonomicity of constructible distributions on non-archimedean local fields", TAU Math Colloquium, Tel-Aviv, Israel.
- 2019 "Point-wise surjective presentations of stacks", Sphericity 2019 CIRM, Luminy.
- 2017 "Counting representations of arithmetic groups and points of schemes", Fourth International Workshop on Zeta Functions in Algebra and Geometry.
- 2017 "Bounds on multiplicities of spherical spaces over finite fields", Geometry and Representation Theory.
- 2016 "Applications of the Bernstein-Kashiwara Theorem", Sphericity 2016 Conference & Workshop, Germany.
- 2015 "Points of algebraic varieties over finite rings", Amitsur Symposium in Algebra.
- 2015 "Holonomicity of spherical characters and applications to multiplicity bounds", Workshop on Generalizations of Symmetric Spaces, Nahsholim, Israel.
- 2014 "Z-finite distributions on p-adic groups." Twelfth Night Workshop in Representation Theory, Weizmann Institute of Science, Israel.
- 2014 "Frobenius formula and representation count." AMS-IMU meeting, Tel-Aviv, Israel.
- 2014 "Frobenius formula and representation count." TAU Math Colloquium, Tel-Aviv, Israel.
- 2015 "Representation count of arithmetic groups, moduli spaces of local systems, and pushforward of smooth measures", IMU meeting, Israel.
- 2013 "Frobenius formula and representation count", BGU Math Colloquium, Bear-Shava, Israel.
- 2011 "Cohen-Macaulay property in representation theory", AMS Meeting, Cornell university, NY, USA.
- 2010 "Smooth Transfer of Kloosterman Integrals", MFO "Workshop on harmonic analysis", Oberwolfach, Germany.
- 2010 "Smooth Transfer of Kloosterman Integrals" and "Relative Representation Theory Over Close Local Fields", Representations des groupes reductifs p-adiques, Porquerolles, France.
- 2009 "Relative Representation Theory Over Close Local Fields" on Workshop on Harmonic Analysis and Invariant Distributions, National University of Singapore.
- 2009 "Multiplicity One Theorems - A Uniform Proof" on the Annual meeting of the Israel Mathematical Union, Weizmann Institute of Science, Israel.
- 2007 "(GL(n+1,F),GL(n,F)) is a Gelfand pair for any local field F" on the 10th Autumn Workshop on Number Theory, Hakuba, Japan.
- 2007 "Schwartz functions on Nash manifolds and applications to representation theory", MFO workshop "Harmonische Analysis und Darstellungstheorie Topologischer Gruppen", Oberwolfach, Germany.

### Academic Service

- 2021- Head of the [Israeli math team](#)
- 2020- Member of the hiring committee of the scientific consul of the Weizmann Institute of Science.
- 2017- 2019 Member of the library committee of the scientific consul of the Weizmann Institute of Science.

- 2017 Co-organizer of “Conference on Representation Theory and Algebraic Geometry”, on the occasion of Joseph Bernstein's 72nd birthday, Weizmann Institute, Israel.
- 2017 Co-organizer of Special trimester Representation Theory of Reductive Groups Over Local Fields and Applications to Automorphic forms”, joint with, Weizmann Institute, Israel.
- 2017 Co-organizer: “Young Algebra Day”, joint with I. Entova-Aizenbud and M. Gorelik, Weizmann Institute, Israel.
- 2014 - 2020 Organizer of the Gillis Olympiad – the national Israeli math competition for high-school students.
- 2014 - Co-organizer: Algebraic geometry and representation theory seminar, Weizmann Institute, Israel.

### **Students and post-docs**

- PhD: Yotam Hendel (graduated in 2019; j/w Joseph Bernstein), Itay Glazer (graduated in 2020), Guy Kapon (expected to graduate in 2025)
- MSc: Itay Glazer (graduated in 2016; j/w Dmitry Gourevitch), Guy Kapon (graduated in 2020),
- Post- Docs. Adam Gal, Roberto Rubio, Devika Sharma, Shay Shechter, Iordan Ganev.

**Languages** Hebrew (mother tongue), English, Russian

### **Personal**

- Birth: June 1, 1983. Ramat-Gan, Israel
- Marital Status: Married + 2

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[1]. See full list of courses at [aizenbud.org/6Teaching/](http://aizenbud.org/6Teaching/)

[2]. See full list of talks at [aizenbud.org/5Talks/](http://aizenbud.org/5Talks/)