# Avraham Aizenbud - CV

Weizmann institute of science, Department of Mathematics, 234 Herzl Street, Rehovot 7610001 Israel.

E-mail: aizenr@gmail.com, Home Page:aizenbud.org Skype Name: aizenr, Tel: +972-8-934-4212

#### **Employment (as a mathematician)**

2021 -		Full Professor, Department of Mathematics, Weizmann Institute of Science.
2016 -	2021	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)
2014, 2020	Teaching Minicourses for IMO team - Banach-Tarski theorem, Dirichlet theorem.
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".
0010	2022	

- 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 -		Minerva research grant "Topological vector spaces in representation theory".
2013 -		BSF research grant "Representation Growth and Rational Singularities".
2013 -		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.
Confere	ences a	nd colloquia Talks <sup>[2]</sup>
2023		"Bounds on multiplicities of symmetric pairs of (pro-) finite groups". Representation Theory,
		Harmonic Analysis and Spherical Varieties, Porquerolles France.
2022		"Multiplicities in relative representation theory". BIU Colloquium
2021		"Multiplicities in relative representation theory". IMU meeting (plenary talk).
2020		"Point-wise surjective presentations of stacks", Conference on representation theory and algebraic
		analysis in honor of Joseph Bernstein.
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
0014		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.
2013 2011		"Cohen-Macaulay property in representation theory", AMS Meeting, Cornell university, NY, USA.
2011		"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.
2000		
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
_007		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					
	123 Head of the <u>Israeli math team</u>				
2020- 2	Member of the hiring committee of the scientific consul of the Weizmann Institute of Science.				
2017- 2	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				
2017	Institute, Israel.				
2014 2	·				
	020 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 a	nd post-docs (current and past)				
PhD:	Yotam Hendel (graduated in 2019; j/w Joseph Bernstein), Itay Glazer (graduated in 2020),				
	Guy Kapon (current), Shahar Dagan (current)				
MSc:	Itay Glazer (graduated in 2016; j/w David Soudry), Guy Kapon (graduated in 2020), Itamar Hadas				
	(j/w David Soudry)				
Post- Docs					
1050 10005	Rum Gui, Roberto Rubio, Deviku Bharing, Shay Bheenter, Iordan Ganev.				
Longuego	Hebrew (mother tongue) English Russian				
Language	Hebrew (mother tongue), English, Russian				

#### Personal

Birth:June 1, 1983. Ramat-Gan, IsraelMarital Status:Married + 3

[1]. See full list of courses at https://www.wisdom.weizmann.ac.il/~aizenr/6Teaching/

[2]. See full list of talks at https://www.wisdom.weizmann.ac.il/~aizenr/5Talks/