

CURRICULUM VITAE

Michael Temkin

General Information

Name: Michael Temkin
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Education

Institution	Degree, Rank	Dates
Moscow High School 57 with intensive study of mathematics	High School Studies	1988/89-1990/91
Moscow University	B.A.	1991/92
Tel-Aviv University	B.A.	1992/93-1993/94
Weizmann institute	M.Sc.	1994/95
M.Sc. awarded at 05/07/1998 (during military service)		
Weizmann institute	Ph.D.	2002/03-2005/2006
Ph.D. awarded at 09/08/2006		

Academic positions held

Institution	Position	Dates
Max Planck Institute for Mathematics	Visitor	March - June 2006
University of Pennsylvania	Lecturer in Mathematics	2006 - 2009
Institute for Advanced Study	Member	2009 - 2010
Hebrew University	Senior Lecturer	2010 - 2014
Hebrew University	Associate Professor	2014 - 2018
Hebrew University	Full Professor	since 2018
Hebrew University	Chair of Einstein Institute of Mathematics	2018 - 2020

Fellowships, Awards and Grants

- Gold medal at XXXII International Mathematical Olympiad, Sigtuna, Sweden 1991.
- Sir Charles Clore Doctoral Scholarship, 2004-2006.
- Membership at the Institute for Advanced Study, NSF grant No. DMS-0635607, 2009-2010.
- Marie Curie International Reintegration Grant (IRG) No. PIRG07-GA-2010-268182, *Local desingularization of quasi-excellent schemes*, 2010-2014.
- Levitzki Prize in Algebra, 2011 (awarded by Israel Mathematical Union each second year).
- BSF grant No. 2010255, *Factorization problems for quasi-excellent schemes and other geometric categories*, joint with D. Abramovich (Brown University), 2011-2015.
- ISF grant No. 1018/11, *Relative birational geometry and Nagata's Compactification for algebraic spaces and stacks*, joint with I. Tyomkin (Ben Gurion University), 2011-2015.
- Alon Fellowship, 2011-2014.
- BSF grant No. 2014365, *Strong semistable reduction*, joint with D. Abramovich (Brown University) and J. Włodarczyk (Purdue University), 2015-2019.
- ISF grant No. 1159/15, *Ramification theory of valued fields and applications to non-archimedean and birational geometries*, joint with A. Goldberger (Tel Aviv University), 2015-2019 (extended to 2021).

- ERC consolidator grant No. 770922 (BirNonArchGeom), *Birational and non-archimedean geometries*, 2018-2023.
- BSF grant No. 2018193, *Topics in resolution of singularities*, joint with D. Abramovich (Brown University) and J. Włodarczyk (Purdue University), 2019-2023.
- ISF grant No. 1203/22, *Geometry of wild ramification*, with collaboration with K. Hübner, 2022-2026.

Advising graduate students and hosting postdoc fellows

- Dmitri Trushin, postdoc fellow at 2011–2014.
- Velibor Bojkovic, postdoc fellow at April–June 2016.
- Adina Cohen-Heilbron, Ph.D. student at 2011–2016.
- Uri Brezner, M.Sc. student at 2012–2013 and Ph.D. student at 2014–2021.
- Hongming Nie, postdoc fellow at 2018–2019.
- Sam Molho, postdoc fellow at 2018–2020.
- Xiang He, postdoc fellow at 2018–2021.
- Katharina Hubner, postdoc fellow at 2019–2021.
- Jose Villanueva Gutierrez, postdoc fellow at 2019–2021.
- Alex Motzkin, Ph.D student since 2020.
- Matthiaas Hippold, Ph.D student since 2021.
- Jingchen Niu, postdoc fellow since 2021.

Invited talks

- "*On the structure of sum-free sets*". (The talk was given by co-author.) Conference "Structure Theory of Set Addition", CIRM, France, June 1993.
- "*On local properties of non-Archimedean spaces*". Conference "Rigid Geometry". University of Münster, Münster, Germany, March 2000.
- "*On local properties of non-Archimedean spaces II*". Conference on *p-adic analysis and arithmetic algebraic geometry*, Weizmann Institute, March 2002.

- *"Desingularization of quasi-excellent schemes over \mathbf{Q} "*. Workshop on Motivic Integration and its Interactions with Model Theory and Non-Archimedean Geometry. ICMS, Edinburgh, Scotland, May 2008.
- *"Inseparable local uniformization and analytic fields"*. Advanced School and Workshop on p-adic Analysis and Applications. The Abdus Salam International Center, Trieste, Italy, September 2009.
- *"Inseparable local uniformization"*. SING 2010 – Resolution of Singularities Problems. A conference in honor of Vincent Cossart. Tordessilas, Spain, March, 2010.
- *"Inseparable local uniformization"*. Second International Conference and Workshop on Valuation Theory. Segovia/El Escorial, Spain, July 2011.
- *"Desingularization of Quasi-excellent Schemes of Characteristic Zero"*. Resolution of Singularities and Related Topics. Congress in Honor of the 80th Birthday of Heisuke Hironaka. Tordesillas, Spain, September 2011.
- *"Stable modification of relative curves"*. Galois Covers and Deformations, University of Bordeaux 1, Bordeaux, France, June 2012.
- *"Berkovich analytic spaces and tubular descent"*. Workshop "Non-archimedean Analytic Geometry", Oberwolfach, Germany, November 2012.
- *"Wild coverings of analytic curves"*. Conference "Algebraic, Analytic and Tropical Geometry", Ein Gedi, Israel, May 2013.
- *"Metrization of the sheaves of differential forms on Berkovich spaces"*. Workshop "Regensburg days on non-archimedean geometry", Regensburg, Germany, October 2013.
- *"Twisted harmonic functions on Berkovich curves"*. Conference "Complex-algebraic aspects of tropical geometry", Bernoulli Center, Lausanne, Switzerland, March 2014.
- *Metric uniformization of maps between Berkovich curves*. Conference "Tropicalization, Realization, and Algebraic-Tropical Correspondence", Eilat, Israel, October 2014.
- *"Metrization of differential pluriforms on Berkovich spaces"*. Simons symposium "Non-archimedean and Tropical Geometry", Simons foundation, Puerto-Rico, USA, February 2015.
- *"Metrization of differential pluriforms on Berkovich analytic spaces"*. Workshop "Tropical Aspects in Geometry, Topology and Physics", Oberwolfach, Germany, April 2015.
- *"Wild covers of Berkovich curves"*. Conference "Non-Archimedean Geometry and its Applications", University of Michigan, Ann Arbor, USA, June 2015.

- *"Resolution by alterations"*. Conference "Singular Landscapes" in honor of Bernard Teissier's 70th birthday, Aussois, France, June 2015.
- *"Wild coverings of Berkovich curves"*. Conference "Non-archimedean analytic geometry: theory and practice", University of French Polynesia, Papeete, French Polynesia, August 2015.
- *"Wild coverings of Berkovich curves"*. Conference in honor of Arthur Ogus on the occasion of his 70th birthday, IHES, Bures-sur-Yvette, France, September 2015.
- *"Desingularization by $\text{char}(X)$ -alterations"*. Workshop "Non-Archimedean Geometry and Applications", Oberwolfach, Germany, December 2015.
- *"On recent advances in the theory of valued fields and some applications"*. Workshop "Two approaches towards local uniformization and resolution of singularities in characteristic $p > 0$ ", Institut Mittag-Leffler, Sweden, May 2016.
- *"Logarithmic desingularization and semistable reduction"*. Conference "P-adic Analytic Geometry and Differential Equations", CIRM, France, March 2017.
- *"On wild coverings of Berkovich curves"*. Simons symposium "Non-archimedean and Tropical Geometry", Simons foundation, Schloss-Elmau, Germany, May 2017.
- *"Covers of Berkovich curves and reduction of the different"*. Workshop "Non-Archimedean geometry, motives and vanishing cycles", Institut Mittag-Leffler, Sweden, June 2017.
- *"Logarithmic resolution of singularities"*. Askoldfest: "Galois Meets Newton: Algebraic and Geometric aspects of Singularity Theory" conference celebrating the 70th birthday of Askold Khovanskii, Weizmann Institute, Israel, July 2017.
- *"Topological transcendence degree"*. Workshop "Model Theory of Valued fields", Institute of Henri Poincare, Paris, March 2018.
- *"Functorial semistable reduction and resolution of morphisms"*. Workshop "Singularities and Homological Aspects of Commutative Algebra", Oberwolfach, Germany, February 2019.
- *"Functorial semistable reduction and resolution of morphisms"*. Workshop "Non-Archimedean Geometry and Applications", Oberwolfach, Germany, February–March 2019.
- *"A dream desingularization algorithm"*. Workshop "Tropical geometry: new directions", Oberwolfach, Germany, April–May 2019.
- *"Reduction and lifting theorems on Berkovich curves"*. Conference "Wild Ramification and Irregular Singularities", Warsaw, September 2019.

- *"Reduction and lifting theorems on Berkovich curves"*. Workshop "Regensburg days on non-archimedean geometry", Regensburg, October 2019.
- *"Tropical reduction and lifting theorems"*. Conference "Tropical Geometry, Berkovich Spaces, Arithmetic D-Modules and p-adic Local Systems", London, December 2020.
- *"Logarithmic resolution of singularities"*. Conference "Moduli and Hodge Theory", Maimi, February 2021.
- *"Logarithmic geometry and resolution of singularities"*. Conference on Arithmetic Geometry in honor of Luc Illusie, Paris, June 2021.
- *"Logarithmic geometry at service of resolution"*. Conference "Singularities in Positive Characteristic, CIRM, Marseille, July 2021.
- *"On logarithmic compactification of strata of Hodge bundle"*. Workshop "Log geometry and moduli", Mittag-Leffler Institute, Stockholm, November 2021.
- *"Resolution of singularities in characteristic zero: new tools and methods"*. Workshop "Toric geometry", Oberwolfach, Germany, March-April 2022.

Editorial work

- Chief editor of the Israel Journal of Mathematics, since 2020.

Other Professional Activities

- Assistant in Arizona Winter School project by B. Conrad *"Algebraic spaces over non-archimedean fields"*, University of Arizona, March 2007.
- I gave a mini course "Introduction to Berkovich analytic spaces" in summer school "Berkovich spaces", at Institut de Mathématiques de Jussieu, Paris, June/July 2010.
- I gave a mini course "Introduction to Berkovich analytic spaces" in summer school "Algebraic geometry" of Bogomolov's laboratory at Moscow High School of Economics, Yaroslavl', July 2015.
- Organization of a conference "Berkovich spaces 30 years" with Antoine Ducros and Jerome Poineau, Paris in July 9–13, 2018 (see <https://conf.lmno.cnrs.fr/berkovich30years/>).
- Organization of an Oberwolfach seminar "New techniques in resolution of singularities" with Dan Abramovich, Anne Frübis-Krüger and Jarosław Włodarczyk, October 24–30, 2021.

- Organization of an Oberwolfach workshop "Non-Archimedean Geometry and Applications" with Peter Scholze, Peter Schneider and Annette Werner, January 30 – February 5, 2022.