Yatir Benari Halevi

CONTACT INFORMATION	Department of Mathematics Faculty of Natural Sciences University of Haifa 199 Abba Khoushy Avenue Mount Carmel Haifa, 3498838 Israel

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RESEARCH INTERESTS

Model Theory and its application to Geometry and Algebra.

EDUCATION

October 2022– Present: University of Haifa, Postdoctoral Fellow, Mathematics.
- Host: Professor Kobi Peterzil (Haifa).

January 2022– September 2022: University of Haifa and Ben Gurion University of the Negev, Postdoctoral Fellow, Mathematics.
- Hosts: Professor Kobi Peterzil (Haifa) and Professor Assaf Hasson (BGU).

July 2021– December 2021: The Fields Institute for Research in Mathematical Sciences, Postdoctoral Fellow, Mathematics.
- Host: Professor Thomas Scanlon (UC Berkeley).

October 2019– June 2021: Ben Gurion University of the Negev, Postdoctoral Fellow, Mathematics.
- Host: Professor Assaf Hasson.

October 2018– September 2019: Ben Gurion University of the Negev, Postdoctoral Fellow, Mathematics.
- Hosts: Professor Assaf Hasson and Dr. Moshe Kamensky.

October 2017– September 2018: Hebrew University of Jerusalem, Postdoctoral Fellow, Mathematics.
- Host: Professor Saharon Shelah.

2013–2017: Hebrew University of Jerusalem, Ph.D. in Mathematics.
- Dissertation Topic: Definable Groups in ACVF and Definable Semigroups in Stable Theories.
- Advisor: Professor Ehud Hrushovski.

2010–2012: Hebrew University of Jerusalem, M.Sc. in Mathematics
- Dissertation Title: On Reductive Algebraic Monoids.
- Advisor: Professor Yakov Varshavski.
- Dean's list 2010/11.

2006–2010: Hebrew University of Jerusalem, B.Sc. in Mathematics (*summa cum laude*).

AWARDS
- Kreitman Post-Doctoral Fellow (2019-2021)
- Noriko Sakurai Award (2019)

○ Post-Doc Fellow of the Minerva Stiftung (Declined)
○ Outstanding TA list at HUJI, 2015,2014

PUBLICATIONS

Definably semisimple groups interpretable in p-adically closed fields, with Assaf Hasson and Ya'acov Peterzil, submitted. arXiv:2211.001417

Enriching a predicate and tame expansions of the integers, with Gabriel Conant, Christian d'Elbée, Léo Jimenez and Silvain Rideau-Kikuchi, submitted. arXiv:2203.07226

On groups interpretable in various valued fields, with Assaf Hasson and Ya'acov Peterzil, submitted. arXiv:2206.05677

Saturated Models for the Working Model Theorist, with Itay Kaplan, submitted. arXiv:2112.02774

Infinite Stable Graphs With Large Chromatic Number II, with Itay Kaplan and Saharon Shelah, accepted to *Journal of the European Mathematical Society*. arXiv:2103.13931

Interpretable Fields in Various Valued Fields, with Assaf Hasson and Ya'acov Peterzil, *Adv. Math.* 404 (2022), Paper No. 108408, 58. arXiv:2109.00569

Infinite Stable Graphs With Large Chromatic Number, with Itay Kaplan and Saharon Shelah, *Trans. Amer. Math. Soc.* 375 (2022), no. 3, 1767-1799. arXiv:2007.12139

Dp-Minimal Integral Domains, with Christian d'Elbée, *Israel J. of Math.* 246 (2021), no. 1, 487-510. arXiv:2006.05755

Definable V-topologies, Henselianity and NIP, with Assaf Hasson and Franziska Jahnke, *J. Math. Log.* 20 (2020), no. 2, 2050008, 33 pp. arXiv:1901.05920

A Generalization of von Staudt's Theorem on Cross-Ratios, with Itay Kaplan, *Math. Proc. Cambridge Philos. Socy* 168 (2020), no. 3, 601-612. arXiv:1803.08520

∞-*constructible Subsemigroups of* $M_2(\mathbb{C})$, *Semigroup Forum* 99 (2019), no. 2, 214-232. arXiv:1607.03603

A Conjectural Classification of Strongly Dependent Fields, with Assaf Hasson and Franziska Jahnke, *Bull. Symb. Log.* 25 (2019), no. 2, 192-195. arXiv:1805.03814

The Dp-rank of Abelian Groups, with Daniel Palacín, *J. Symb. Log.* 84 (2019), no. 3, 957-986. arXiv:1712.04503

Strongly Dependent Ordered Abelian Groups and Henselian Fields, with Assaf Hasson, *Israel J. Math.* 232 (2019), no. 2, 719-758. arXiv:1706.03376

Corrigendum to "On stably pointed varieties and generically stable groups in ACVF" [Ann. Pure Appl. Log. 170(2) (2019) 180-217], *Ann. Pure Appl. Logic* 173 (2022), no. 1, 103045.

On Stably Pointed Varieties and Generically Stable Groups in ACVF, *Ann. Pure Appl. Logic* 170 (2019), no. 2, 180-217. arXiv:1611.05422

Eliminating Field Quantifiers in Strongly Dependent Henselian Fields, with Assaf Hasson, *Proc. Amer. Math. Soc.* 147 (2019), no. 5, 2213-2230. arXiv:1707.03188

Semigroups in Stable Structures, Notre Dame J. Formal Logic 59 (2018), no. 3, 417–436. arXiv:1509.02275

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<div>Talks at Conferences and Seminars</div>
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2022: Hebrew University Math Colloquium, May. Mathematical Logic Seminar, HUJI, May.

2021: GTM Paris, February. Mathematical Logic Seminar, HUJI, March. Oxford Logic Seminar, Oxford, May. Logic Colloquium 2021 (European summer meeting of ASL), Poznań, July. Workshop on Trends in Pure and Applied Model Theory, Fields Institute (Toronto), July. Model Theory Seminar, Fields Institute (Toronto), August. Fudan Model Theory and Philosophy of Mathematics Conference (Shanghai), August.

2020: Mathematical Logic Seminar, HUJI, January. Algebra Seminar, University of Haifa, April. Set Theory Seminar, Bar-Ilan University, October. Bar-Ilan University Math Colloquium, December. University of Haifa Math Colloquium, December. DDC Valuation Theory Seminar, MSRI, December.

2019: Workshop on NIP and Groups, University of Leeds, January. Model Theory of Valued Fields and Applications, University of Münster, June.

2018: Set Theory Model Theory and Applications - Conference, Ben Gurion University, April; Dresden TU International Seminar, Dresden, Germany, May; Model Theory +972 Seminar, HUJI, June; Oberseminar zur Modelltheorie und Gruppen, University of Münster, July; Mathematical Logic Seminar, HUJI, November.

2016: Mathematical Logic Seminar, The Hebrew University, November; Seminar in Logic, Set theory and Topology, Ben-Gurion University of the Negev in Israel, April; Model Theory Month in Münster - Conference, University of Munster, May.

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Academic Experience

Lecturer
Ben Gurion University of the Negev:
- Fall 2022: Differential Equations for Materials Engineering
- Spring 2022: Calculus II for Engineering
- Spring 2021: Algebra II
- Fall 2020: Algebra I
- Spring 2020: Linear Algebra I for Materials Engineering
- Fall 2019: Fourier Analysis for Electrical Engineering
- Spring 2019: Algebra II
- Fall 2018: Differential Equations for Materials Engineering

Hebrew University:
- Spring 2018: Mathematical Logic II

Teaching Assistant 2011-2017 (Hebrew University): Linear Algebra (I and II), Mathematics of Science Students (I and II), Mathematical Logic (I and II) and Algebraic Structures I.

Seminars organized (Hebrew University):
- Fall 2013 – Spring 2017: Graduate Student Seminar of the Mathematics Department.
- Fall 2018–Spring 2018: Hebrew University Logic Seminar.