# Yahay Alon - Curriculum Vitae

#### **Personal Details**

Email: yahava@gmail.com

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Citizenship: Israel

#### **Affiliation**

Department of Pure Mathematics, School of Mathematical Sciences, Sackler Faculty of Exact Sciences, Tel Aviv University, Tel Aviv 6997801, Israel.

#### **Education**

Oct 2019 – present Ph.D. Pure mathematics, Tel Aviv University.

Advisor: Prof. Michael Krivelevich.

Oct 2017 – Sep 2019 M.Sc. Pure mathematics, Tel Aviv University, summa cum

laude.

Advisor: Prof. Michael Krivelevich.

Thesis title: Hamilton cycles in random graphs.

Final grade: 97.

2008 – 2010 B.Sc. Mathematics and computer science as part of "Arazim"

program for mathematical excellence, Tel Aviv University.

2005 – 2008 Maccabim – Reut high school,

Majored in Physics and Art.

# **Professional experience**

2010 – 2016 Researcher and later lead researcher in algorithms and

mathematical theory (IDF computers and communication

corps).

# **Awards**

2019 Excellence in M.Sc. Studies, School of Mathematical Sciences, Tel Aviv University

## **Papers**

1. Y. Alon and M. Krivelevich, *Random graph's Hamiltonicity is strongly tied to its minimum degree*, Electronic Journal of Combinatorics 27 (2020), publ. 1.30. arXiv version: <a href="https://arxiv.org/abs/1810.04987">https://arxiv.org/abs/1810.04987</a>

2. Y. Alon and M. Krivelevich, *Finding a Hamilton cycle fast on average using rotations-extensions*, Random Structures & Algorithms 57 (2020), 32-46.

arXiv version: <a href="https://arxiv.org/abs/1903.03007">https://arxiv.org/abs/1903.03007</a>

3. Y. Alon and M. Krivelevich, *Hitting time of edge disjoint Hamilton cycles in random subgraph processes on dense base graphs*.

Submitted.

arXiv version: <a href="https://arxiv.org/abs/1912.01251">https://arxiv.org/abs/1912.01251</a>

4. Y. Alon, M. Krivelevich and E. Lubetzky, *Cycle lengths in sparse random graphs*. Submitted.

arXiv version: <a href="https://arxiv.org/abs/2008.13591">https://arxiv.org/abs/2008.13591</a>

5. Y. Alon, M. Krivelevich and P. Michaeli, *Spanning trees at the connectivity threshold*.

arXiv version: <a href="https://arxiv.org/abs/2010.15519">https://arxiv.org/abs/2010.15519</a>

#### **Talks**

- 1. Cycle lengths in sparse random graphs. Research seminar in combinatorics, Tel Aviv university, November 2020
- 2. Hitting time of edge disjoint Hamilton cycles in random subgraph processes. Warwick combinatorics seminar. June 2020.
- 3. Hitting time of disjoint Hamilton cycles in random subgraph processes. FUB-TAU joint workshop, March 2020.
- 4. Finding Hamilton cycles fast on average using rotations-extensions. The 19th International Conference on Random Structures and Algorithms, ETH Zurich, July 2019.
- 5. Finding Hamilton cycles fast on average using rotations-extensions. Research seminar in combinatorics, Tel Aviv university, June 2019.

## **Teaching (Tel Aviv University)**

- 1. Intro to discrete mathematics for engineers.
- 2. Linear Algebra for computer science and statistics (Teaching assistant).
- 3. Linear Algebra for mathematics (Teaching assistant).
- 4. Linear Algebra II for computer science and statistics (Teaching assistant).
- 5. Grading: Linear Algebra, Linear Algebra II, Calculus III, Number Theory, Introduction to Combinatorics, Basic Combinatorics, Graph theory.