CURRICULUM VITAE AND LIST OF PUBLICATIONS

• Personal Details

Name: Ariel Sapir
E-mail address: sapirar@biu.ac.il

• Education

Ph.D.	2023–	Ph.D. Student at the Department of Computer Science, Bar-Ilan University, Israel.
M.Sc.	2015–2018	Computer Science, Ben-Gurion University of the Negev, Israel. Thesis: *Distributed Graph Coloring*, Advisor: Prof. Michael Elkin.
B.Sc.	2010–2014	Mathematics and Computer Science, Ben-Gurion University of the Negev, Israel.
"100 Project" for excelling students	2010–2012	Mathematics, Ben-Gurion University of the Negev, Israel.

• Employment History

Head Teaching Assistant	Oct 2024 –	Teaching assistant at the Department of Computer Science, Bar-Ilan University, Israel.
Academic Tutor	Dec 2023 –	Personal tutor for reserved soldiers ("Miluim") under the Department of Computer Science, Bar-Ilan University, Israel.
Algorithmic Researcher	Sep 2021 – Aug 2023	Algorithmic approach to real-life network problems, focusing on flow-similar problems. Both theoretical and implementation of algorithms. Ribbon Communications, Israel.

Information System Engineer	Oct 2015 – Aug 2021	Software design and documentation, integration with external systems, role-based UI design and analyzing customers' operational requirements. Mamtam, Israeli Navy, IDF.
Teaching Assistant	Mar 2015 – Aug 2017	Teaching assistant at the Department of Computer Science, Ben-Gurion University of the Negev, Israel.

• **Courses Taught**

Probability	2027 sem A, 2027 sem B, 2026 sem A, 2026 sem B, 2025 sem A, 2025 sem B.	Head TA	Bar-Ilan University, Israel.
Design of Algorithms	2015 sem B, 2016 sem B, 2017 sem B	TA	Ben-Gurion University of the Negev, Israel.
Automata and Formal Languages	2016 sem A, 2017 sem A	TA	Ben-Gurion University of the Negev, Israel.

• **Scientific Publications**

Journals:

1. T. Kogan, Am. Sapir, **Ar. Sapir**, L. Sapir, "*The Fibonacci Family of Iterative Processes for Solving Nonlinear Equations*". **Applied Numerical Mathematics**, 110 : 148 – 158, Elsevier.
2. T. Kogan, Am. Sapir, **Ar. Sapir**, L. Sapir, "*To the Question of Efficiency of Iterative Methods*", **Applied Mathematics Letters**, 66 : 40 – 46, Elsevier.
3. T. Kogan, Am. Sapir, **Ar. Sapir**, L. Sapir, "*Nonstationary vs. stationary iterative processes*", **Numerical Algorithms**, 86 : 515–535, Springer.

Conference talks:

1. U. Feige, **A. Sapir**, L. Tauber, "*A Tight Negative eExample for MMS Fair Allocations*". Presented on **WINE 2021** and also **available on arxiv**. Cited **58** times.
2. L. Roditty, **A. Sapir**, "*Additive, Near-Additive, and Multiplicative Approximations for APSP in Weighted Undirected Graphs: Trade-offs*

and Algorithms". Presented on **FSTTCS 2025** and also **available on arxiv**.

3. L. Roditty, **A. Sapir**, "*Weighted Emulators with Local Heaviest Edges Stretch for Undirected Graphs*". Presented on **ISAAC 2026** and also **available on arxiv**.

Papers under submission:

1. Am. Sapir, **Ar. Sapir**, "*Dependency Preservation May Prevent Stopping at 2NF*". Submitted to publication, **available on arxiv**.
2. E. Koveshi, L. Roditty, **A. Sapir**, "*Near-Additive All-Pairs Approximate Shortest Paths in Decremental Weighted Graphs*". Submitted to publication.
3. L. Saggy, **A. Sapir**, "*Smallest Multiplicative Stretch for an α-APASP Below $\tilde{O}(n^{\omega})$ Runtime*". Submitted to publication, **available on arxiv**.

• **Talks in Seminars**

Summar Seminar on Algebric Graph Theory 2025, **CS Theory Seminar 2026**.

• **Volunteering**

Beiteshel Fellowship	2006–2012, 2018–2019	Site perseverance and maintenance, assistance in guiding activity, trees plantation, Pal-Makh bonfire, website development. Beiteshel (near Be'er-Sheva), Israel.

• **Languages**

Programming languages: Prolog, Java, JavaScript, Scheme, ABAP, html, Pascal, C, C++, CSS, ML.

Spoken languages:

Fluently: עברית, English.
Good: Русский.
Basic: 日本語, Español, العربية, Română.