

Ilan Reuven Cohen

Curriculum Vitae

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Research Interests

My main research interest lies in the theory of algorithms. Specifically, in the areas of approximation, randomized and online algorithms with game theoretic aspects. My research goal is to develop new algorithmic techniques that improve and simplify our understanding of fundamental problems in computer science.

Education

Tel Aviv University. 2011–2016
Advisor: Prof. Yossi Azar
Dissertation: Online Packing and Covering Problems
Ph.D. in Computer Science

Tel Aviv University. 2008–2010
Advisor: Prof. Yossi Azar
Dissertation: Prompt Mechanisms for Bounded Capacity Auction
M.A in Computer Science
Magna Cum Laude.
GPA – 94.

Technion - Israel Institute of Technology. 2001–2004
B.A in Computer Science
Cum Laude.
GPA – 90.

Experience

Bar Ilan University 2020-present
Faculty Member in the Faculty of Engineering

Jether Energy 2019-2020
Researcher

**Centrum Wiskunde & Informatica
in Amsterdam** 2018-2019
Postdoctoral research fellow

**Carnegie Mellon University and
University of Pittsburgh** 2017-2018
Postdoctoral research fellow

Simons-Berkeley and 2016-2017
I-CORE(Israel research excellence center)
Postdoctoral research fellow

Yahoo, New York 2016
Algorithm designer, summer intern
Developed algorithms for ads allocation.

LMY R&D, Tel Aviv 2010-2016
Algorithm designer
Developed Computer Vision and Optimization algorithms

I.D.F. 2004-2010
Algorithm designer

Teaching **Tel Aviv University** 2013-2016
Teaching assistant in Algorithms

Programming Skills **C++, C#, Java, Matlab**
Advanced Skills

Honors and Awards **The Fulbright Post-doctoral Scholar Fellowship**
2017
The Jorge Deutsch Prize
2016
The Gutwirth foundation scholarships
2015

Noteworthy Activities **Volunteer math instructor, in Educating for Excellence program.**
2007-2008

Languages **Hebrew**
Mother tongue
English
Fluent

Publications:

The Loss of Serving in the Dark.

Y. Azar, I.R. Cohen and I. Gamzu

Information Processing Letters, **2023**.

Stochastic graph exploration with limited resources.

I.R. Cohen:

Workshop on Approximation and Online Algorithms, **WAOA 2022**.

Truly Asymptotic Lower Bounds for Online Vector Bin Packing.

János Balogh, I.R. Cohen, Leah Epstein, Asaf Levin:

Workshop on Approximation Algorithms for Combinatorial Optimization Problems, **APPROX 2021**.

Contention Resolution, Matrix Scaling and Fair Allocation.

Nikhil Bansal, I.R. Cohen:

Workshop on Approximation and Online Algorithms, **WAOA 2021**.

Weighted completion time minimization for capacitated parallel machines.

I.R. Cohen, Izack Cohen, Iyar Zaks:

Workshop on Approximation and Online Algorithms, **WAOA 2021**.

Online Two-Dimensional Load Balancing.

I.R. Cohen, Sungjin Im, Debmalya Panigrahi

International Colloquium on Automata, Languages, and Programming, **ICALP 2020**.

Tight Bounds for Online Edge Coloring.

I.R. Cohen, B. Peng, D. Wajc

IEEE Symposium on Foundations of Computer Science, **FOCS 2019**.

Stochastic Graph Exploration.

A. Anagnostopoulos, I.R. Cohen, S. Leonardi, J. Łącki

International Colloquium on Automata, Languages, and Programming, **ICALP 2019**.

Dynamic Pricing of Servers on Trees.

I.R. Cohen, A. Eden, A. Fiat, L. Jez

Workshop on Approximation Algorithms for Combinatorial Optimization Problems, **APPROX 2019**.

Randomized Algorithms for Online Vector Load Balancing.

Y. Azar , I.R. Cohen, D. Panigrahi

ACM-SIAM Symposium on Discrete Algorithms, **SODA 2018**.

Randomized Online Matching in Regular Graphs.

I.R. Cohen, D. Wajc

ACM-SIAM Symposium on Discrete Algorithms, **SODA 2018**.

Online Lower Bounds via Duality.

Y. Azar , I.R. Cohen, A. Roytman

ACM-SIAM Symposium on Discrete Algorithms, **SODA 2017**.

Online Algorithms for Packing and Covering Problems with Convex Objectives.

Y. Azar , I.R. Cohen, D. Panigrahi (Joint submission with two other groups)

IEEE Symposium on Foundations of Computer Science, **FOCS 2016**.

Packing Small Vectors.

Y. Azar , I.R. Cohen, A. Fiat, A. Roytman

ACM-SIAM Symposium on Discrete Algorithms, **SODA 2016**.

Serving in the Dark should be done Non-Uniformly.

Y. Azar, I.R. Cohen

Automata, Languages, and Programming International Colloquium, **ICALP 2015**.

Pricing Online Decisions: Beyond Auctions.

I.R. Cohen, A. Eden, A. Fiat, L. Jez

ACM-SIAM Symposium on Discrete Algorithms, **SODA 2015**.

Tight Bounds for Online Vector Bin Packing.

Y. Azar, I.R. Cohen, S. Kamara and B. Shepherd

Symposium on Theory of Computing Conference, **STOC 13**.

The Loss of Serving in the Dark.

Y. Azar, I.R. Cohen and I. Gamzu

Symposium on Theory of Computing Conference, **STOC 13**.
