

**C.V.**

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Email: gabrieln@ariel.ac.il  
Birth: 1980, Caracas, Venezuela

**Research Area:** Computational and Combinatorial Geometry, Combinatorial Games.

**CURRENT AFFILIATION**

2012- Lecturer, Department of Computer Science, Ariel University, Ariel, Israel

**PAST POSITIONS**

2011-2012 Post-doctoral researcher, Mathematics Department, EPFL, Lausanne, Switzerland

2009-2011 Post-doctoral researcher, Institute of Theoretical Computer Science  
ETH Zürich

**EDUCATION**

2005-2009 Ph.D. in Computer Science  
Tel-Aviv University  
Thesis: Weak epsilon-nets, Davenport-Schinzel sequences, and related problems  
Advisor: Prof. Micha Sharir

2002-2004 M.Sc. in Computer Science and Applied Mathematics  
Weizmann Institute of Science  
Thesis: The Sprague-Grundy function for Wythoff's game: On the location of the g-values  
Advisor: Prof. Aviezri S. Fraenkel

1996-2000 B.A. in Computer Science, Cum Laude  
Yeshiva University, New York.

**TEACHING**

Fall 2015 *Linear Algebra (2x), Number Theory*, Ariel University

Summer 2015 *Linear Algebra 2*, Ariel University

- Spring 2015     *Linear Algebra 1, Linear Algebra 2*, Ariel University
- Fall 2014       *Linear Algebra 1, Linear Algebra (3x)*, Ariel University
- Summer 2014   *Linear Algebra 2, Calculus 2, Calculus 2 extension*, Ariel University
- Spring 2014    *Linear Algebra 1, Discrete Mathematics*, Ariel University
- Fall 2013       *Linear Algebra (3x)*, Ariel University
- Summer 2013   *Linear Algebra 2, Calculus 2*, Ariel University
- Spring 2013    *Linear Algebra 1, Linear Algebra 2, Calculus 2*, Ariel University
- Fall 2012       *Linear Algebra 1*, Ariel University
- Spring 2012    *Discrete Optimization* (over 100 students), EPFL Lausanne
- Fall 2011       Teaching Assistant for *Linear Algebra* and *Analysis III*, EPFL Lausanne
- Spring 2011    *Discrete Geometry*, ETH Zürich
- Fall 2010       *Computational Geometry* (in conjunction with B. Gärtner and M. Hoffmann),  
ETH Zürich
- Spring 2010    Teaching Assistant for *Metric Embeddings*, ETH Zürich
- 2005-2009      Teaching Assistant for *Discrete Mathematics* and for *Data Structures*, Tel Aviv  
University
- 2006-2009      Grader for *Scientific Writing*, Tel Aviv University
- 2005-2006      Private tutor for eTeacher Corp. in mathematics and computer science for  
high school and college students
- 2003-2004      Private lessons in mathematics for high school and college students

## PROFESSIONAL SERVICE

- 2011            Program Committee, EuroCG 2011, Morschach, Switzerland

## WORK EXPERIENCE

- 2001            Freelance programmer for Davka Corp.

**AWARDS**

- 2009      Deutsch prize for excellence in research, Blavatnik School of Computer Science, Tel Aviv University
- 2009      SODA 2009 Best Student Paper Award
- 2008-2009   Excellence scholarship, Raymond and Beverly Sackler Faculty of Exact Sciences, Tel Aviv University
- 2000      Jacob David Cohen Memorial Award, Yeshiva University
- 2000      Joseph Gunner Memorial Award, Yeshiva University
- 1996      Silver Medal, 21<sup>st</sup> CENAMEC Venezuelan Mathematical Olympiad

**PUBLICATIONS**

1. Gabriel Nivasch  
Cycle detection using a stack  
*Information Processing Letters*, vol. 90, 135-140 (2004).
2. Gabriel Nivasch and Eyal Lev  
Non-attacking queens on a triangle  
*Mathematics Magazine*, vol. 78, 399-403 (2005).
3. Gabriel Nivasch  
The Sprague-Grundy function of the game Euclid  
*Discrete Mathematics*, vol. 306, 2798-2800 (2006).
4. Gabriel Nivasch  
An improved, simple construction of many halving edges  
In J. E. Goodman et al., editors, *Surveys on Discrete and Computational Geometry: Twenty Years Later*, vol. 453 of *Contemporary Mathematics*, pp. 299-305, AMS (2008).
5. Noga Alon, Haim Kaplan, Gabriel Nivasch, Micha Sharir, and Shakhar Smorodinsky  
Weak epsilon-nets and interval chains  
19th ACM-SIAM Symp. on Discrete Algorithms (SODA 2008),  
*Journal of the ACM*, vol. 55, article 28, 32 pages (2008).
6. Gabriel Nivasch  
More on the Sprague-Grundy function for Wythoff's game  
In M. H. Albert and R. J. Nowakowski, editors, *Games of No Chance 3*, vol. 56 of *MSRI Publications*, pp. 377-410, Cambridge University Press (2009).
7. Gabriel Nivasch and Micha Sharir  
Eppstein's bound on intersecting triangles revisited  
*Journal of Combinatorial Theory, Series A*, vol. 116, 494-497 (2009).

8. Boris Bukh, Jiří Matoušek, and Gabriel Nivasch  
Stabbing simplices by points and flats  
*Discrete and Computational Geometry*, vol. 43, pp. 321-338 (2010).
9. Gabriel Nivasch  
Improved bounds and new techniques for Davenport-Schinzel sequences and their generalizations  
20th ACM-SIAM Symp. on Discrete Algorithms (SODA 2009) – best student paper,  
*Journal of the ACM*, vol. 57, article 17, 44 pages (2010).
10. Boris Bukh, Jiří Matoušek, and Gabriel Nivasch  
Lower bounds for weak epsilon-nets and stair-convexity  
25th ACM Symp. on Computational Geometry (SoCG 2009),  
*Israel Journal of Mathematics*, vol. 182, pp. 199-228 (2011).
11. Boris Bukh and Gabriel Nivasch  
Upper bounds for centerlines  
*Journal of Computational Geometry*, vol. 3, pp. 20-30 (2012).
12. Gabriel Nivasch, János Pach, Rom Pinchasi, and Shira Zerbib  
The number of distinct distances from a vertex of a convex polygon  
*Journal of Computational Geometry*, vol. 4, pp. 1-12 (2013).
13. Gabriel Nivasch, János Pach, and Gábor Tardos  
The visible perimeter of an arrangement of disks  
Graph Drawing 2012 (*Lecture Notes in Computer Science*, vol. 7704, pp. 364-375, 2013),  
*Computational Geometry: Theory and Applications*, vol. 47, pp. 42-51 (2014)
14. Sathish Govindarajan and Gabriel Nivasch  
A variant of the Hadwiger-Debrunner  $(p, q)$ -problem in the plane  
*Discrete and Computational Geometry*, vol. 54, pp. 637-646 (2015).
15. Gabriel Nivasch and Eran Omri  
Rainbow matchings and algebras of sets  
EuroComb 2015 (*Electronic Notes in Discrete Mathematics*, vol. 49, pp. 251-257, 2015),  
full version submitted.
16. Gabriel Nivasch  
On the zone of a circle in an arrangement of lines  
EuroComb 2015 (*Electronic Notes in Discrete Mathematics*, vol. 49, pp. 221-231, 2015),  
full version submitted.
17. Boris Bukh, Po-Shen Loh, and Gabriel Nivasch  
One-sided epsilon-approximants  
In preparation.