

# CURRICULUM VITAE

## **Personal Details**

Name: Eli Bagno  
 Home Address: 3 Shmuel Meir, Har Choma, Jerusalem, Israel.  
 Cellular phone number: 972-544-541627  
 Office Telephone number: 02-6751020  
 Email: bagnoe@gmail.com  
 Birth Date: 20.6.70  
 Birth Place: Israel  
 Military/National Service: Military, 3 years.  
 Marital Status: Married + 5.

## 1. Higher Education

### **Undergraduate and Graduate Studies**

<b>Period of Study</b>	<b>Name of Institution and Department</b>	<b>Degree</b>	<b>Year of Approval of Degree</b>
2000-2004	Mathemtaics, Bar Ilan University	3	2004
1996-1999	Mathematics, Bar Ilan University	.2	1999
1993-1996	Mathematics, Bar Ilan University	1	1996

## Post-Doctoral Studies

<b>Period of Study</b>	<b>Name of Institution, Department and Host</b>	<b>Degree</b>	<b>Year of Completion</b>
2005-2006	Einstein Institute of Mathematics, the Hebrew university, Jerusalem.  Host: Prof. Alex Lubotzky	Post doc.	2006

## Academic Appointments

<b>Dates</b>	<b>Name of Institution and Department</b>	<b>Rank/Position</b>
<b>2011</b>	Dept. of Math. Jerusalem college of Technology.	Senior Lecturer.
<b>2007</b>	Dept. of Math. Jerusalem college of Technology.	Regular appointment
<b>2005</b>	Dept. of Math. Jerusalem college of Technology.	Lecturer
<b>2004</b>	Dept. of Math. Jerusalem college of Technology.	Non-faculty teacher.

## Awards and Honors for Academic or Professional Achievement

2004:Bar Ilan president program for excellent Ph.D. students.

2009: Grant From the Israel-France Foundation (PRC)

2017: Grant From the Israel-France Foundation (PRC)

### **Scholarly Positions and Activities outside the Institution**

2020: appointed to the editorial board of "Enumerative combinatorics and applications".

2020: Edited the proceedings of Fpsac 2020.

2015: An invited lecture in "Journées de Combinatoire de Lyon" .

2014: A lecture in The Combinatorics seminar at Bar Ilan University.

### **Referee reports for the following journals:**

1. Advances in applied Math.
2. The bulletin of the L.M.S.
3. Journal of combinatorial theory A.
4. The Fpsac conference.
5. Central European Journal of Mathematics.
6. Journal of Algebraic Combinatorics.
7. The European Journal of Combinatorics.
8. The Electronic journal of Combinatorics.
9. Journal of combinatorial theory A.
10. Applied Mathematics E-Notes.
11. The Fpsac conference 2020.
12. Journal of Integer Sequences.
13. Enumerative combinatorics and applications.

## Participation in Scholarly Conferences

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
2002	Fpsac 2002	University of Melbourne	Exact Kazhdan Constants of Some Coxeter Groups and Wreath Products	Poster
2004	Fpsac 2004	Vancouver, Canada	Sign balance for finite groups of Lie type.	Poster
2005	Fpsac 2005	Taormina, Italy	Combinatorics and Representations of Complex Reflection Groups $G(r,p,n)$ .	Poster
2005	Fpsac 2005	Taormina, Italy	On the Excadence number of colored permutation groups	Poster
2005	Fpsac 2005	Taormina, Italy	Permutation representations on invertible matrices.	Poster
2006	26th International Colloquium on group Theoretical Methods in Physics	University of New York	<u>On the excedance number for involutions in colored permutation groups</u>	Lecture given by coauthor David Garber
2010	Fpsac 2010	San Francisco University	Involutions of the Symmetric Group and Congruence B-Orbits	Poster

<b>2014</b>	Gascom 2014	Bertinoro, Italy	Recursions for the flag-excedance number in colored permutation groups	lecture
<b>2015</b>	Fpsac 2015	Daegeun, Korea	Depth on classical Coxeter group.	Poster
<b>2015</b>	Journées de Combinatoire de Lyon	Lyon, France	Depth on classical Coxeter group.	Invited lecture
<b>2017</b>	THE 78th SÉMINAIRE LOTHARINGIEN DE COMBINATOIRE	Ottrot, France	A length function for the complex reflection group $G(r, r, n)$ .	lecture
<b>2017</b>	Fpsac 2017	London, England	Block decomposition of permutations and Schur positivity.	poster
<b>2017</b>	Permutation patterns 2017	Reykjavik University, Iceland	Block decomposition of permutations and Schur positivity	lecture
<b>2018</b>	combinatorics and number theory seminar	Lyon, France	Block decomposition of permutations and Schur positivity	lecture
<b>2018</b>	Gascom 2018	Athens, Greece	Some identities of second kind Stirling numbers of types B and D.	lecture

<b>2018</b>	Fpsac 2018	Darmouth college, U.S.A.	On two-sided Gamma-Positivity for Simple Permutations	Lecture, given by coauthors Shulamit Reches and Moriah Sigron
<b>2019</b>	Fpsac 2019	Ljubljana, Slovenia	Some identities of second kind Stirling numbers of types B and D	poster
<b>2020</b>	Permutation patterns	Virtual conference	Counting king permutations on the cylinder	Poster
<b>2022</b>	Permutation patterns	Indiana, USA.	Continuity of the major index on conjugacy classes	lecture
<b>2022</b>	AEC conference	Vienna, Austria	The Worpitzky identity in Coxeter groups of type D	lecture
<b>2022</b>	Gascom	Italy.	A q-r-analogue for the Stirling numbers of the second kind of Coxeter groups of type B	Lecture given by coauthor David Garber

## Papers

1. E. Bagno, Kazhdan Constants of some colored permutation groups, Journal of Algebra 282 (2004) pp. 205-231.  
<https://doi.org/10.1016/j.jalgebra.2004.08.017> **IF: 0.599. Rank A\***
2. E. Bagno, Euler-Mahonian Parameters on Colored Permutation groups, Seminar Lotharingien de Combinatoire 51 (2004), Article B51f. **Rank: C.**
3. E. Bagno & R. Biagioli, Combinatorics and Representations of Complex Reflection Groups G(r,p,n), Israel Journal of Math, 160, (2007), pp. 317-347. **Impact Factor: 0.787, Rank: A.**
4. E. Bagno & D. Garber, On the Excadence numebr of colored permuataion groups, Seminar Lotharingien de Combinatoire, 53 (2006), Article B53f. **Rank: C**
5. E. Bagno & Y. Cherniavsky, Permutation representations on invertible matrices, Linear Algebra and its Applications, 419, (2006) pp. 494-518.  
<https://doi.org/10.1016/j.laa.2006.05.016> , **IF 0.939, Rank: A.**
6. E. Bagno, D. Garber & T. Mansour, Excedance number for involutions in Complex reflection groups, Seminaire Lotharingien de Comibinatoire 56 (2007), Article B56d. , **Rank: C.**
7. E. Bagno, A. Butman, & D. Garber, Statistics on the multi-colored permutation groups, The Electronic Journal of Combinatorics, 14, (2007), #R24. **DOI: https://doi.org/10.37236/942.** , **Impact factor=0.854, rank Q2**
8. E. Bagno & Y. Cherniavsky, Sign Balance for finite groups of Lie type. Linear Algebra and its applications. 429 (1), 2008 , pp. 224-233.  
<https://doi.org/10.1016/j.laa.2008.02.016> , **Impact factor 0.939, Rank: A.**
9. E. Bagno, D. Garber & T. Mansour, Counting descent pairs with prescribed colors in the colored permutation groups, Seminar Lotharingien de Combinatoire 60 (2009), Article B60e., **Rank: C.**
10. E. Bagno, Y. Cherniavsky, Congruence B-orbits and the Bruhat poset of involutions of the symmetric group, Discrete Mathematics, vol. 312, Issue

6, (2012), pp. 1289-1299. <https://doi.org/10.1016/j.disc.2011.12.018> ,  
**Impact factor: 0.557, Rank: A**

11. E. Bagno, D. Garber & T. Mansour, On the group of alternating colored permutations. The Electronic Journal of combinatorics, 21,(2) (2014), #P2.29. **DOI:** <https://doi.org/10.37236/3974> . Cited by 2. **Impact factor=0.854, rank Q2.**
12. E. Bagno, D. Garber, T. Mansour and R. Shwartz, Recursions for the flag-excedance number in colored permutation groups, Pure Mathematics and Applications.
13. E. Bagno, R. Biagioli, M. Novick and A. Woo, Depth in Classical Coxeter groups, Journal of Algebraic Combinatorics , (2016), Vol. 44, Issue 3, pp. 645-676. <https://doi.org/10.1007/s10801-016-0683-9> **Impact Factor: 0.676, Rank: A**
14. E. Bagno, A. Hanel, The Manhattan metric as a solution of some problems in Rashi's method in tractate Eruvin. In "Ladaat Baareth Darchecha", editors T. Dana Picard and G. Morelli. (in Hebrew).
15. R. M. Adin, R.M., E. Bagno, E. & Roichman, Block decomposition of permutations and Schur-positivity, J Algebr Comb (2018) 47:603–622, <https://doi.org/10.1007/s10801-017-0788-9> Y. J Algebr Comb (2017).
16. R. M. Adin, E. Bagno, S. Reches, E. Eisenberg and M. Sigron, On two-sided gamma-positivity for simple permutations, the electronic journal of combinatorics 25(2) (2018), #P2.38 **DOI:** <https://doi.org/10.37236/7472> ,**Impact Factor: 0.676, Rank: A**
17. E. Bagno, R. Biagioli and D. Garber, Some identities involving second kind Stirling numbers of types B and D. The electronic journal of combinatorics, 26(3) (2019), #P3.9 **DOI:** <https://doi.org/10.37236/8703> ,**Impact factor=0.854, rank Q2.**
18. E. Bagno, S. Reches, E. Eisenberg and M. Sigron, On the poset of non-attacking king permutations. European Journal of Combinatorics. Vol. 87, June 2020, <https://doi.org/10.1016/j.ejc.2020.103119>. ,**Impact factor:0.911, rank: Q2.**

19. **Eli Bagno, Estrella Eisenberg, Shulamit Reches, and Moriah Sigron,** On the sparseness of the downsets of permutations via their number of separators, ECA 1:3 (2021) Article S2R21. arXiv preprint arXiv:1905.12364
20. E. Bagno, R. Biagioli, F. Jouhet and Y. Roichman, Block number, descents and Schur positivity of fully commutative elements in  $B_n$ . European Journal of Combinatorics, vol. 101. (2022) doi: 10.1016/j.ejc.2021.103464
21. Bagno, E., Garber, D. & Novick, M. The Worpitzky identity for the groups of signed and even-signed permutations. *J Algebr Comb* (2021). <https://doi.org/10.1007/s10801-021-01056-4E>.
22. **Eli Bagno, Estrella Eisenberg, Shulamit Reches, and Moriah Sigron,** Counting King permutations on the Cylinder, ECA 2:4 (2022) Article #S4PP5.
23. Bagno and D. Garber, Signed partitions-a ‘balls into urns’ approach. Bull. Math. Soc. Sci. Math. Roumanie, Tome 65 (113), No. 1, 2022, 63–71 .

### Preprints/ in preparation

1. E. Bagno and Y. Kares. Continuity of Major index on involutions.
2. E. Bagno, D. Garber and T. Komatz, A q-r analoge for sums of powers of poly -Stirling numbers.
3. E. Bagno, E. Eisenberg, M. Sigron and S. Reches, The blockwise simple permutation.

## Organization of Conferences or Sessions

Date	Name of Conference	Place of Conference	Role at Conference/ Comments
2020	Fpsac 2020	Virtual	<b>Member of organization committee</b>  <b>Editor of proccedings</b>  <b>Head of sesseion</b>
2021	Fpsac 2020	Bar Ilan University	<b>Member of organization committee</b>
2022	כנס תורה ומדע	Jct and Bar Ilan University	<b>Member of organization committee</b>

## **Funded Projects , Grants or Contracts**

2007-2009:

**Title:**

**NEW PRESENTATIONS AND STATISTICS ON SUBGROUPS OF THE COLORED PERMUTATION GROUP.**

Granted by: Israeli – France fellowship.

Recipient names: Eli Bagno, Toufik Mansour, David Garber, Ricardo Biagioli, Frederic Jouhet, Jiang Zeng.

My function: Head of Israeli team.

2017-2019

**Title:**

**Combinatorics of Coxeter groups.**

Granted by: Israeli – France fellowship.

Recipient names: Eli Bagno, Ricardo Biagioli, Frederic Jouhet , David Garber, Shulamit Reches.

My function: Head of Israeli team.

## **7.Other Relevant Academic and Professional activities**

2013: Visiting Professor at the University of Lyon.

2014: A lecture in Gascom conference. Planed to June 2014, Italy.

2014: A lecture in The Combinatorics seminar at Bar Ilan University.

2015: An invited lecture in "Journées de Combinatoire de Lyon" .

2020: Edited the proceedings of Fpsac 2020.

2020: appointed to the editorial board of "Enumerative combinatorics and applications".

## **8. Referee reports for the following journals:**

14. Advances in applied Math.
15. The bulletin of the L.M.S.
16. Journal of combinatorial theory A.
17. The Fpsac conference.
18. Central European Journal of Mathematics.
19. Journal of Algebraic Combinatorics.
20. The European Journal of Combinatorics.
21. The Electronic journal of Combinatorics.
22. Journal of combinatorial theory A.
23. Applied Mathematics E-Notes.
24. The Fpsac conference 2020.
25. Journal of Integer Sequences.
26. Enumerative combinatorics and applications.