Curriculum Vitae

Toufik Mansour

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Note that * represents activities and publications since last promotion

1 Personal Details_____

Name:	Toufik Mansour.
Date of Birth:	January 17, 1968.
Country of Birth:	Haifa, Israel.
Marital Status:	Married (1994), three children.
Permanent Address:	B.O.X. 2012, Isfiya 30090, Israel.
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2 Higher Education

A. Undergraduate and Graduate Studies

Period of Study	Name of Institution and Department	Degree	Year of Approval of Degree
1988-1992	Technion Institute of Technology, Department of Mathematics	B.Sc.	1992
1996-1998	University of Haifa, Department of Mathemat- ics	M.A.	1998
1998-2001	University of Haifa, Department of Mathemat- ics	Ph.D.	2001

B. Post-Doctoral Studies

Period of Study	Name of Institution and Department	Degree	Year of Ap- proval of Degree
2001	Laboratoire Bordelais de Recherche Informatique (LaBRI), France Professor Alexandre Zvonkine	Postdoc	2002
2002	Chalmers University of Tech., Göteborg, Sweden, Department of Mathematics, Professor Einar Ste- ingrímsson and Professor Svante Linusson	Postdoc	2003
July 2003	Linköpings Universitet, Linköping, Sweden, Matematiska Institutionen	Summer School, during Post-Doc	July 2003

3 Academic Ranks and Tenure in Institute of Higher Education___

A. Regular Positions

Dates	Name of Institution and Department	Rank/Position
1998-2001	University of Haifa, Department of Mathematics	Teaching Assistant
2003	University of Haifa, Department of Mathematics	Lecturer (Proposed Rank)
2004	University of Haifa, Department of Mathematics	Senior Lecturer (MA'OF Scholarship)
2005-2007	University of Haifa, Department of Mathematics, Haifa, Israel	Senior Lecturer
2008-2014	University of Haifa, Department of Mathematics, Haifa, Israel	Associate Professor
2014-present	University of Haifa, Department of Mathematics, Haifa, Israel	Full Professor

B. Visiting Positions

Dates	Name of Institution and Department	Rank/Position
2004-2007	Nankai University, Center for Combinatorics, Tianjin,	Visiting Associate Professor
	P.R. China (2 months per year)	
Jul. 18 - Aug.	Chalmers University of Technology and Göteburg	Visiting Associate Professor
19, 2009	University, Göteburg, Sweden	
Jun. 27 - Jul.	Beijing International Center for Mathematical Re-	Visiting Associate Professor
27, 2011	search, Beijing, P.R. China	
Jan. 31 - Feb.	Kwangwoon University and Kyungpook National	Visiting Full Professor
7, 2013	University, Seoul and Taegu, South Korea	
Feb. 8-22, 2014	Kyungpook National University, Taegu, South Korea	Visiting Full Professor
Sept. 7-12,	University of the Witwatersrand, Johannesburg,	Visiting Full Professor
2015*	South Africa	
Apr. 8-15,	University of Prishtina, Prishtinë, Republic of Kosovo	Visiting Full Professor
2017*		
Sept. 9-11,	University of Prishtina, Prishtinë, Republic of Kosovo	Visiting Full Professor
2018*		
Jul. 24 - Aug.	University of Prishtina, Prishtinë, Republic of Kosovo	Visiting Full Professor
$8, 2018^{*}$		

4 Offices in University Academic Administration

Dates	Name of Department/Institute	Position
2003-2005	Mathematics	Co-organizer of the departmental colloquium
2006-2015	Mathematics	Advisor, evaluation of external credits
2010-2015	Mathematics	Member of Graduate Committee
2013-2015	Mathematics	Advisor, BA courses
2015-2017	Mathematics	Chairman
2017-2020*	Mathematics	Responsible for assistants and researcher fellows
2017-2021*	University of Haifa	Member in the Senate
2019-2023*	Mathematics	Member of New Candidates Committee
2018-2023*	Mathematics	Member of Room Committee
2021-2025*	University of Haifa	Member of Honorary Degrees Committee

Outside of the University

Dates	Institute	Position
2016-2018*	The Arab Academic Collage for	Member of Promotion Committee
	Education in Israel	
2021-2022*	Sakhnin Collage	Member of Promotion Committee

5 Scholarly Positions and Activities outside the University_

A. Editorial Work

• Discrete Mathematical Chemistry (2022–) 9 International Journal of Combinatorics (2014–) 1 International Journal of Mathematics and Statistics (2015–) 19 Journal of Algebraic Combinatorics (2019–) 5 Journal of Inequalities and Special Functions (2017–). 17 Journal of Integer Sequences (2012–) 14 Online Journal of Analytic Combinatorics (2016–) 2 Open Journal of Discrete Mathematics (2014–2017)All Enumerative Combinatorics and Applications (Since Sept 1, 2020)

B. Referee for Professional Journals

• Abstract and Applied Analysis, 3 • Acta Arithmetica, 1 • Acta informatica, 1 • Acta Mathematica Sinica, 2 • Acta et Commentationes Universitatis Tartuensis de Mathematica, 1 • Advances in Applied Mathematics, 5 • Advances in Applied Probability, 1 • Advances in Difference Equations, • Advances in Pure Mathematics, 1 • Afrika Matematika, 1 • American Mathematical Monthly, 10 • Analele Stiintifice ale Universitatii Ovidius Constanta, 1 • Annales des sciences mathématiques du Québec, • Annals of Combinatorics, 10 • Applicable Analysis and Discrete Mathematics, 7 • Applications and 1 Applied Mathematics: An International Journal, 6 • Applied Mathematics and Computation, 5 • Applied Mathematics-A Journal of Chinese Universities, 2 • Applied Mathematics E-Notes, 1 • Applied Mathematics Letters, 2 • Archiv der Mathematik, 1 • Ars Combinatoria, 9 • Arnold Mathematical Journal, 2 • Ars Mathematica Contemporanea, 1 • Asian-European Journal of Mathematics, 1 • Australasian Journal of Combinatorics, 10 • Axioms, 1 • Boletín de la Sociedad Matemática Mexicana, 1 • British Journal of Mathematics & Computer Science, 1 • Bulletin of Mathematical Analysis and Applications, 3 • Bulletin of the Polytechnic Institute of Iasi, 1 • Bulltein of the Korean Mathematical Society, 1 • Central European • Chemical Physics Letters, 5 • Colloquium Mathematicum, 1 Journal of Mathematics, 2 • Computer Physics Communications, 1 • Contributions to Discrete Mathematics, 1 • Creative Mathematics and In-• Czechoslovak Mathematical Journal, 1 • Discrete Applied Mathematics, 21 formatics, 1 • Discrete Dynamics in Nature and Society, 2 • Discrete Mathematics, 42 • Discrete Mathematics and Theoretical Computer Science, 3 • Discrete Mathematics Letters, 3 • Discussiones Mathematicae Graph Theory, 3 • Discussiones Mathematicae, General Algebra and Applications, 1 • Electronic Journal of Combinatorics, • European Journal of Combinatorics, 26 • Fasciculi Mathematici, 1 • FILOMAT, 5 11 • General Mathematics Notes, 1 • Georgian Mathematical Journal, 1 • Graphs and Combinatorics, 3 • Graduate Journal of Mathematics, 1 • Hacettepe Journal of Mathematics and Statistics, 2 • Indagationes Mathematicae, 1 • Indian Journal of Pure and Applied Mathematics, 1 • Integers, 13 • Information Processing • International Journal of Computer Mathematics, 1 • International Journal of Mathematics, 1 Letters, 1 • International Journal of Mathematics and Mathematical Sciences, 1 • International Journal of Number • International Journal of Quantum Chemistry, 1 • International Scholarly Research Notices, 1 Theory, 1 • Iranian Journal of Science and Technology, 1 • Involve, Journal of Mathematics, 1 • Italian Journal of Pure and Applied Mathematics, 1 • Journal Combinatorial Theory Series A, 9 • Journal Combinatorial Theory Series B, 1 • Journal of Algebraic Combinatorics, 22(Editor) • Journal of Applied Mathematics, 1 • Journal of Applied Mathematics and Computing, 3 • Journal of Automata Languages and Combinatorics, • Journal of Contemporary Mathematical Analysis, 1 • Journal of Combinatorial Mathematics and 3 Combinatorial Computing, 1 • Journal of Combinatorics, 2 • Journal of Combinatorics and Number Theory, 1 • Journal of Difference Equations and Applications, 13 • Journal of Graph Theory, 2 • Journal of Indian Mathematical Society, 1 • Journal of Integer Sequences, 23 • Journal of Inequalities and Special Functions-JIASF, 1 • Journal of Inequalities and Applications, 5 • Journal of Inequalities and Special Functions, 1 • Journal of Mathematical Analysis and Applications, 2 • Journal of Mathematical Physics, 3 • Journal of Number Theory, 3 • Journal of Statistical Planning and Inference, 1 • Konuralp Journal of Mathematics, 1 • Kragujevac Journal of Mathematics, 1 • Linear Algebra and Applications, 5 • Malasya • MATCH Communications in Mathematical and in Computer Chemistry, 8 Journal, 1 • Mathematical and Computer Modelling, 1 • Mathematical Communications, 1 • Mathematical Methods in Applied Sciences, 2 • Mathematica Slovaca, 2 • Mathematics in Computer Science, 1 • Mathematische Nachrichten, • Mediterranean Journal of Mathematics, 2 • Methodology and Computing in Applied Probability, 1 1 • Methods and Applications of Analysis, 1 • Missouri Journal of Mathematical Sciences, 1 • Moscow Journal of Combinatorics and Number Theory, 1 • MSA Algebra, 1 • Networks, 1 • New York Journal of Mathematics, 1 • Notes on Number Theory and Discrete Mathematics, 3 • Online Journal of Analytic Combinatorics, 15 • Open Journal of Discrete Mathematics, 3 • Order, 1 • Pacific Journal of Math-• Polycyclic Aromatic Compounds, 1 • Proceedings of the American Mathematical Society, ematics, 1 • Publications de l'Institut Mathématique, 2 • Punjab University Journal of Mathematics, 1 • Pure 1 Mathematics and Applications, 3 • Quaestiones Mathematicae, 5 • Random structures Journal and Algorithms, 2 • Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas, • Sarajevo Journal of Mathematics, 1 • Science China Infromation Science, 1 • Science China Math-1 • Scientific Research and Essays, 1 • Séminaire Lotharingien de Combinatoire, 2 • SIAM ematics, 1 • SIAM Review, 1 • Symmetry, 1 • Symmetry, Integrability and Geometry: Discrete Mathematics, 9 Methods and Applications, 1 • The Computer Journal, 1 • The Fibonacci Quaterly, 1 • The Journal of Integer Sequences, 10 • The Ramanujan Journal, 5 • Theoretical Computer Science, 4 • The Journal of Mathematical Modeling and Algorithms, 1 • Turkish Journal of Mathematics, 1 • Utilitas Mathematica, 4 • Vietnam Journal of Mathematics, 1

Excellent Reviewer

(1) On behalf of Catherine Yan from Advances in Applied Mathematics you have been nominated as an excellent reviewer for the Journal, October 19, 2015. (2) On behalf of the Douglas B. West from Discrete Mathematics you have been nominated as an excellent reviewer for the Journal, December 9, 2015.

C. Referee for Scholarly Conferences

• ESOP 2007 • GASCOM'07 • LATA'2008 • LATIN 2012 • PP'06-09 • PP'11 • PP'13-14 • FPSAC'09

• FPSAC'13 • FPSAC'16 • ICMPS2018• WOCA 2015• SEDA 2018• SODA 2017

D. Referee/Reviewer for Awards, Funds, Grants, Prizes, Programs

2 BRIS Program 2 Centre for Applicable Analysis and Number Theory (CAANT) 1 ISF (2016) 85* Math-SciNet 3 National Research Foundation 1 NRF South Africa's National Research Foundation, 2 NSA Mathematical Sciences Grants Program 1 NSERC (Natural Sciences and Engineering) Research Council of Canada, 1 Swiss National Science Foundation 1 The Icelandic Research Fund, 1 TWAS Award 2024, 1 UCD School of Mathematical Sciences 56 ZbMath

E. Referee for Master and Doctoral Thesis.....

- 1. Carleton University, Doctoral Thesis,*2.
- 2. SRM Institute of science and Technology,*1
- 3. Technion, Doctoral Thesis, 2.
- 4. Tel-Aviv University, Doctoral Thesis,*1.
- 5. Thiruvalluvar University, India, Doctoral Thesis,*2.
- 6. University of California, San Diego, Doctoral Thesis,*1.
- 7. University of Haifa, Master Thesis, *5; Doctoral Thesis, 2.
- 8. Visvesvaraya Technological University, India, Doctoral Thesis,*1.
- 9. Vels Institute of Science, Technology & Advanced Studies (VISTAS), Doctoral Thesis,*1.

F. Referee for Promotion.....

- 1. Jerusalem College of Technology,
- *2. Sakhnin College,
- 3. University of Haifa (1+1 head),
- 4. University of Prishtina,
- *5. Michigan State University,
- *6. University of the Witwatersrand,
- *7. The Arab Academic College for Education in Israel (2).
- *8. University of Nevada, Las Vegas.

G. Master Committee

University of Haifa, 5 Master Students

H. Scholarships Committee.....

- 1^{*} Druze scholarships of the Ministry of Education (2016-2019),
- 2* Israeli Council for Higher Education (VATAT) Post-doctoral scholarships (2017-2020)
- 3^{*} Board of International Advisors of KMS (2021-Today)
- 4* International Advisory Board of the Department of Mathematics SRM Institute of Science and Technology (2021-Today).

6	Active Participation in Scholarly Conferences
A. Nat	Active Participation

Date	Name of Conference	Place of Con- ference	Subject of Lecture/Discussion	Role
2000 May 17	Israel Meeting Union (IMU)	University of Haifa, Israel	Restricted permutations, contin- ued fractions, and Chebyshev polynomials	Talk
2005 May 24 - June 3	Workshop on permuta- tion patterns	University of Haifa, Israel	Matchings avoiding partial pat- terns	Talk
2008 May 29-30	Israel Mathematical Union (IMU)	Ashkelon Col- lege, Israel	A Carlitz identity for the wreath product $G_{r,n}$	Talk
2010 June 30	Workshop in Combina- torics in Honor of Doron Zeilberger's 60th Birth- day	Weizmann Institute of Science, Rehovot, Israel	Smooth partitions and Chebyshev polynomials	Talk
2013 June 16	Israel Mathematical Union (IMU)	University of Haifa, Haifa, Israel	On the real-rootedness of general- ized Touchard polynomials	Talk

International

Date	Name of Conference	Place of Confer-	Subject of Lecture/Discussion	Role
		ence		
2000	Formal Power Series and	Russia (Moscow)	Avoiding and containing certain	Poster
June 25-30	Algebraic combinatorics		patterns	
	2000 (FPSAC'00)			
2001	Séminaire Lotharingien de	France (Lyon)	Restricted permutations and	Talk
Mar. 18-21	Combinatoire 46 (SLC' 46)		Chebyshev polynomials	
2002	Séminaire Lotharingien de	France (Obernai)	Counting occurrences of 132 in a	Talk
Mar. 10-13	Combinatoire 48 (SLC'48)		permutation	
2003	Séminaire Lotharingien de	France (Obernai)	Counting occurrences of 132 in an	Talk
Mar. 22-27	Combinatoire 50 (SLC'50)		even permutation	
2003	Formal Power Series and	Sweden (Vad-	(1) Counting occurrences of	Talk
June 23-27	Algebraic combinatorics	stena)	132 in an even permutation	
	2003 (FPSAC'03)		(2) 321-Polygon-avoiding permu-	
			tations and Chebyshev polynomi-	
			als	
2004	Paths, Permutations and	Nankai Uni-	Restricted Motzkin permutations,	Talk
Feb. 25-27	Trees	versity, China	Motzkin paths, continued frac-	
		(Tianjin)	tions, and Chebyshev polynomials	
2004	Formal Power Series and	University of	(1) Finite automata and	Poster
June 28 -	Algebraic Combinatorics	British Columbia	pattern avoidance in words	
July 2	2004 (FPSAC'04)	(Vancouver B.C.,	(2) Restricted Motzkin permuta-	
		Canada)	tions, Motzkin paths, continued	
			fractions, and Chebyshev polyno-	
2004		N. (D.)	mials	(T) 11
2004	2nd Annual Internat.	Nanaimo (British	Counting occurrences of 231 in an	Talk
July 5-9	Conference on Permuta-	Columbia,	involution	
2004	tion patterns	Canada)		T 11
2004	Combinatorics, Special	Nankai Uni-	Counting occurrences of 231 in an	Talk
Aug. 2-4	Functions and Physics,	versity, China	involution	
	In Honor of the 75-th	(Tianjin)		
	Birthday of James D.			
	Louck			

Date	Name of Conference	Place of Confer- ence	Subject of Lecture/Discussion	Role
2006 June 12-16	4th Annual Internat. Conference on Permuta- tion Patterns	Iceland (Reyk- javik)	Longest alternating subsequences in pattern-restricted permutations	Talk
2007 July 2-6	Formal Power Series and Algebraic Combinatorics (FPSAC'07)	Nankai Uni- versity, China (Tianjin)	(1) Grid polygons from per- mutations and their enumer- ation by the kernel method (2) Involutions avoiding the class of permutations in S_k with prefix 12	Talk
2010 May 27-28	From $A = B$ to $Z = 60$ Conference in Honor of Doron Zeilberger's 60th Birthday	Rutgers Univer- sity, USA	Some recursive formulas for Selberg-type integrals	Talk
2010 June 30	Workshop on Combin., On the occasion of Doron Zeilberger's 60th birthday	Weizmann Insti- tute of Science, Israel	Smooth partitions and Chebyshev polynomials	Talk
2014 Jan 15 - 18	2014 Joint Mathematics Meetings: Topological Graph Theory: Structure and Symmetry, III	Baltimore, Nart- land	Log-Concavity of Genus Distri- butions of Ring-Like Families of Graphs	Talk
2014 Jun 16 - 19	Second Joint Interna- tional Meeting of the Israel Mathematical Union and the American Mathematical Society: Topological Graph The- ory and Map Symmetries	TelAviv, Israel	Log-Concavity of the Genus Poly- nomials for a Sequence of Cubic Halin Graphs	Talk
2017 July 17-21	23rd Conference on Appli- cations of Computer Alge- bra	Jerusalem Col- lege of Technol- ogy, Israel	Wilf classification of subsets of four-letter patterns	Talk*
2020 June 30 - July 1	Permutation Patterns 2020	Virtual meeting	Longest increasing subsequences for permutations avoiding one pattern of length three and an- other pattern of length four	Talk [*] given by my coau- thor
2020 Novem- ber 6-7	International Virtual Conf, on Progress in Math. Towards Industrial Appl. (PMTIA)	Virtual meeting	Bounds on vertex based topologi- cal indices	Invited Talk [*]
2020 Novem- ber 23-27	FIM 28, Synergies in Computational, Math- ematical, Statistical and Physical Sciences, SCMSPS 2020, Virtual	Virtual meeting	Perimeter and site perimeter of a k -ary word	Talk*

Date	Name of Conference	Place of Confer- ence	Subject of Lecture/Discussion	Role
2021 March 24-26	International Conference on Mathematics Tech- niques and Applications (e-ICMTA-2021)	Virtual meeting	Bounds on vertex based topologi- cal indices	Invited Talk [*]
2021 May 1-2	AMS Spring Western Vir- tual Sectional Meeting	Virtual meeting	Partial duality for ribbon graphs, III: A Gray code algorithm for enumeration	Invited Talk [*]
2021 June 10-12	1-st Western Balkan Conference in Mathe- matics and Applications, (WBCMA2021)	Virtual meeting	A parametric generalization of the Baskakov-Schurer-Szász-Stancu approximation operators	Invited Talk [*]
2021 July 26-29	Combinatorics and Alge- bras from A to Z in honor of Amitai Regev and Doron Zeilberger	Virtual meeting	Restricted permutations, Conjec- ture of Lin and Kim, and work of Andrews and Chern	Invited Talk [*]
2022 May 5-6	ICMA-2022, International Conference on Mathemat- ics and Its Applications, Sacred Heart College, In- dia,	Virtual meeting	An algorithmic approach based on generating trees for enumerat- ing pattern-avoiding inversion se- quences	Invited Talk [*]
2022 Novem- ber 22-24	ICMR- 2022, Interna- tional Conference on Multidisciplinary	Virtual meeting	On the Merrifield-Simmons index of tricyclic graphs	Invited Talk [*]

Date	Name of conference	Place of conference	Subject of Lec- ture/Discussion	Rule
2005			, ,	C
2005	The third international confer-	University of Florida,	Permutation Pat-	Со-
Mar. 7-11	ence on Permutation Patterns	Florida (Gainesville)	terns	organizer
2005	Workshop on permutation	University of Haifa, Is-	Permutation Pat-	Organizer
May 29 -	patterns	rael (Haifa)	terns	
June 3				
2007	Expert Workshop on Geomet-	University of Haifa, Is-	Geometric Combi-	Organizer
Nov. 19-21	ric Combinatorics	rael (Haifa)	natorics	
2013	26th International Conference	Acharya Institute Of	Global Advance-	Scientific
Aug. 1-4	of Jangjeon Mathematical So-	Graduate Studies,	ment of Mathe-	Commit-
	ciety	Bangalore, India	matics	tee
2014	Second Joint International	Tel-Aviv and Bar-Ilan	Topological	Organizer
June 16-19	Meeting of the Israeli Math-	Universities	Graph Theory	0-8
0.0000 0.000	ematical Union (IMU) and	0 0	and Map Symme-	
	the American Mathematical		tries	
	Society (AMS)		01103	
2015	The 28th International Con-	Akdeniz University An-	Topics: Pure	Scientific
May 15-19	ference of The Jangjeon Math-	talya, Turkey	and Applied	Commit-
May 10 15	ematical Society	tarya, runcy	Mathematics &	tee
	ematical Society		Statistics, Mathe-	iee
			matical Physics	
2020*	The 32nd international confer-	Bar-Ilan University, Is-	Enumerative and	Organizer
		0,		Organizei
July 13-17	ence on Formal Power Series	rael (Virtual meeting)	Algebraic Combi-	
0000*	and Algebraic Combinatorics		natorics	
2022*	ICMA2022, International	Sacred Heart College, In-	Mathematics and	Editorial
May 5-6	Conference on Mathematics	dia	its Applications	Board
	and its Applications		-	
2022^{*}	ICECA2022, International	University of Haifa, Is-	Enumerative and	Chair (12
Sep. 6-7	Conference on Enumerative	rael	Algebraic Combi-	speakers,
	Combinatorics and Applica-		natorics	170 par-
	tions (Virtual)			ticipants)
2023*	CMTA-2023, 4-th Inter-	SRM University, India	Mathematical	Advisory
Mar. 22-24	national Conference on		Techniques and	Commit-
	Mathematical Techniques and		Applications	tee
	Applications			

B. Organization of Conferences or Sessions

C. Visiting Researchers.....

Date	Visitor Name	Visitor Affiliation
Feb, 2013	Margaret Archibald	University of Cape Town
March-May, 2015	Mark Shattuck	University of Tennessee
June, 4-16, 2015	Aubrey Blecher	University of Witwatersrand
July, 1-10, 2016	Taekyun Kim	Kwangwoon University
July, 1-10, 2016	Seog-Hoon Rim	Kyungpook National University
November, 20-30, 2017	Matthias Schork	Industry
July-August, 2018	Gokhan Yildirim	Bilkent University

7 Invited Lectures_____

Date	Place of Lecture	Name of Forum	Presentation
2002 Oct. 22	University of Haifa	Restricted permutations	Talk

Date	Place of Lecture	Name of Forum	Presentation
2004 Feb.	Nankai University of (Tianjin, China) Center for Combinatorics	(1) Restricted permutations, Block decomposi- tion, and Chebyshev polynomials, (2) Avoid- ance pattern Problem and Combinatorial Ob- jects, (3) Restricted 321-avoiding permutations	Talk
2004 July	Nankai University of (Tianjin, China), Center for Combinatorics	(1) Finite Automata I, (2) Finite Automata II	Talk
2008 Aug. 1-14	University of the Wit- watersrand, Johannesburg, South Africa	(1) Recurrence relations with two indices and Kernel method, (2) Recurrence relations with two indices and Hoppy paths, (3) Scanning- element-algorithm and Kernel method, (4) Fi- nite automata and restricted k-ary words, (5) Finite automata and restricted compositions	Talk
2009 July 18 - Aug. 19	Chalmers University of Technology and Göteburg University, Göteburg, Sweden	 Combinatorics of compositions and words, Scanning element algorithm and restricted k-ary words, (3) Statistics, kernel method, and permutations, (4) Diffusion on an Ising chain with kinks 	Talk
2010 Aug. 9-19	University of the Wit- watersrand, Johannesburg, South Africa	Smooth set partitions and Chebyshev polynomials	Talk
2013 Feb. 1-7	Kwangwoon University and Kyungpook National University, Seoul and Taegu, South Korea	Log-Concavity of Genus Distributions of Some Graphs	Talk
2013 May 30 - June 1	1-st International West- ern Balkans Conference of Math. Sciences, University of Elbasan, Albania	Combinatorics of Set Partitions	Main Speaker
2014 Jan. 15 - Jan 18	2014 Joint Mathemat- ics Meetings, Baltimore, Maryland: Topological Graph Theory: Structure and Symmetry, III	Log-Concavity of Genus Distributions of Ring- Like Families of Graphs	Talk
2014 Feb. 10	Kyungpook National University, Taegu, South Korea	Identities involving Laguerre polynomials de- rived from Umbral calculus	Talk
2014 Feb. 17	Kyungpook National University, Taegu, South Korea	Higher-order q -Daehee polynomials	Talk
2014 Apr. 15	University of the Wit- watersrand, Johannesburg, South Africa	Kernel method	Talk
2015 Mar. 4	Sogang University, Seoul, South Korea	Umbral Calculus and Normal Ordering	Two Talks
2015 Mar. 5	Sogang University, Seoul, South Korea	Touchard polynomials and Umbral Calculus	Talk
2015 Mar. 6	Kwangwoon University, Seoul, South Korea	Umbral Calculus and Normal Ordering	Two Talks

Date	Place of Lec	ture	Name of Forum	Presentation
2021 Apr. 22*	Rutgers Mathematics	Experimental s Seminar	On Stanley-Wilf limit of the pattern 1324	Talk

8 Colloquium Talks_____

Date	Place of Lecture	Name of Forum	Presentation
2001 May	Bar Ilan University	Restricted permutations, Continued frac- tions, and Chebyshev polynomials	Talk
2001 June	Wiezmann Institute	Restricted permutations and Chebyshev polynomials	Talk
2001 July	Tel Aviv University	Pattern avoidance in coloured permutations	Talk
2001 Oct.	Laboratoire Bordelais de Recherche Informatique (LaBRI)	Restricted permutations and Chebyshev polynomials	Talk
2001 Dec.	Laboratoire Bordelais de Recherche Informatique (LaBRI)	Pattern avoidance in coloured permutations	Talk
2002 Mar.	Laboratoire Bordelais de Recherche Informatique (LaBRI)	Counting occurrences of 132 in a permuta- tion	Talk
2002 Apr. 10	Wiezmann Institute	Permutations avoiding a pattern of length three or length four	Talk
2002 Apr. 14	Bar Ilan University	Counting occurrences of generalized pat- tern of length three in a permutation	Talk
2002 Sep. 24	Chalmers University of Technology	Restricted permutations and Chebyshev polynomials	Talk
2002 Oct. 1	Chalmers University of Technology	Counting occurrences of 132 in a permuta- tion	Talk
2002 Oct. 28	Technion Institute of Tech- nology	Restricted permutations and Chebyshev polynomials	Talk
2003 Jan. 28	Ben-Gurion University	Average norms of polynomials	Talk
2003 Mar. 6	Chalmers University of Technology	Average norms of polynomials	Talk
2003 July 4	Linköpings Universitet	Counting occurrences of 3-letter patterns in a permutation	Talk
2004 Oct. 25	Technion Institute of Tech- nology	Finite automata and pattern avoidance in words	Talk
2005 Dec. 7	Technion Institute of Technology	Three letter patterns, k-ary words, the scanning elements method, and functional equations	Talk
2007 June 5	Bar Ilan University	Kernel method and linear recurrence system	Talk
2008 Feb. 4	Hebrew University	On the number of combinations without certain separations	Talk
2008 Mar. 12	Technion Institute of Tech- nology	Longest alternating sequences of k -ary words	Talk
2009 Oct. 21	Technion Institute of Tech- nology	Smooth partitions and Chebyshev polynomials	Talk
2014 Feb. 10	Kyungpook National Uni- versity	<i>q</i> -Changhee polynomials	Talk

Date	Place of Lecture	Name of Forum	Presentation
2014 Feb. 11	Kyungpook National Uni-	q-Daehee polynomials and numbers	Talk
	versity		
2014 Feb. 12	Kyungpook National Uni-	Modified Apostol-type polynomials arising	Talk
	versity	from umbral calculus	
2014 Feb. 17,18,	Kyungpook National Uni-	Introduction to Umbral calculus	Talk
20	versity		
2020 Oct. 25	Bar Ilan University	On Stanley-Wilf limit of the pattern 1324	$Talk^*$
2021 Dec. 19	AL-Qasemi Academy	Lattice paths	$Talk^*$
2022 May 31	Sakhnin College for	Combinatorics and Generating trees	$Talk^*$
	Teacher Education		
2022 Jun 8	Technion	An algorithmic approach based on generat-	Talk [*]
		ing trees for enumerating pattern-avoiding	
		inversion sequences.	

9 Research Grants_

A. Grants Awarded

Role in Research	Other Researchers	Topic	Funded by /Amount	Year
Co-investigator	PI: Eli Bagno and Riccardo Biagioli, Co- Investigators: David Garber, Frédéric Jouhet and Jiang Zeng	Statistics on generalized permu- tation groups	Israel-French, 1,600Euro my part	2007– 2009

B. Submission of Research Proposals - Not Funded

Role in Research	Other Researchers	Topic	Funded by /Amount	Year
PI	Astrid Reifegerste, PI	Hyperoctahedral group and pattern avoidance	The German Israeli Foundation for Sci- entific Research and Development (G.I.F), Good Grade	2005
PI		The Structure and Log- Concavity of Graph Genus Polynomials	Israel Science Founda- tion	2014

10 Scholarships, Awards and Prizes_

- 1. 1997, Rahal and Banin Scholarship (1,000\$).
- 2. 1999, Isfiya Local Council Scholarship (250\$).
- 3. 2001, Bourse Chateaubriand (25,000\$).
- 4. 2002, EC's IHRP programme, within the Research Training Network "Algebraic Combinatorics in Europe", grant HPRN-CT-2001-00272 (25,000\$).
- 5. January 2003, During my visit at University of Haifa, Israel, which had been support by HIACS Research Center and the Caesarea Edmond Benjamin de Rothschild Foundation Institute for Interdisciplinary Applications of Computer Science (1,300\$).

- 6. 2003–2005, MA'OF Scholarship (9,000\$), Research grant number 0720, Department of Mathematics, University of Haifa, Israel.
- 7. 2008, The High Druze Religious Council, 27 April 2008 (I was awarded in the presence of the Minister of Education).
- 8. 2014, Award, University of Prishtina, Republic of Kosovo.

11 Teaching_

A. Courses Taught in Recent Years.....

University of Haifa

Year	Name of Course	Type of Course	Degree	Number of Students
2004–2007, 2015, 2018A, 2019A	Advances on Numerical Analysis	Lecture	M.A.	2004:13, 2006:17, 2015:6, 2019:12, 2021A4
2010, 2013, 2016B, 2021A	Analytical Combinatorics	Lecture	M.A.	2010:4, 2014:9, 2016:12, 2021A4
1999	Calculus A	Exercise	B.A.	
2004	Calculus B	Lecture	B.A.	28
2006, 2011, 2013, 2015, 2018A, 2019A, 2020A, 2022A	Calculus C	Lecture	B.A.	2006:22,2011:19,2014:47,2015B38,2017A35,2019A40,2020A41,2022A20,2022B13
2007, 2009, 2013, 2018B, 2020A	Combinatorial Calculus	Lecture	M.A.	2007:5, 2009:9, 2012:8, 2018B5, 2020A6
2003-2010	Complex Functions	Lecture	B.A.	2003:45, 2010:31
2003–2009, 2011, 2013B, 2014B, 2015A, 2016B, 2017B, 2018A, 2018C, 2019B, 2021B, 2021C	Discrete Mathematics	Lecture	B.A.	2003:32, 2004:41, 2005:39, 2006:41, 2007:30, 2009:49, 2011:85, 2011:56, 2013:29, 2014:28, 2015:69, 2016A42, 2017B42, 2018A71, 2018C55, 2019B40, 2021B26, 2021C63
2003	Linear Algebra A	Lecture	B.A.	45
2003, 2013	Linear Algebra B	Lecture	B.A.	2003:45, 2013:106
1998	Linear algebra A,B	Exercise	B.A.	
2015-2017, 2018B, 2019B, 2020A, 2021A, 2022A	Ordinary Differential Equations	Lecture	B.A.	2015B:23,2016A:38,2017AB:36,35,2018B:55,2019B50,2020A31,2021A14,2022A20,2022B222022B22
2005–2010	Probability and Statistics	Lecture	B.A.	2005:12,2006:6,2007:13,2007:9,2008:13,2008:13,2009:13,2009:12,2010:6,2010:132010:132010:13,

Year	Name of Course	Type of Course	Degree	Number of Students
2020	Recurrence Relations with Two Indices	Guided Reading	M.A.	2020B2
1999–2001 1999	Theory of complex functions Theory of real functions	Exercise Exercise	B.A. B.A.	
2004–2006, 2012–2014	Workshop on Discrete Mathe- matics	Workshop	B.A. and M.A.	2004:9, 2005:3, 2012:10, 2014:11
2012, 2013, 2020	Infinite Set Theory	Lecture	B.A.	2012:35, 2014:27, 2020B25

Other Universities

Year	Name of Course and Place	Type of Course	Degree
1999–2001	Logic and set theory, Combinatorics, and Algebra I, The Aca- demic Arab College for Education	Lecture	B.A.
2001	Differential equations I, Open University	Lecture	B.A.
2001	Discrete mathematics, Open University	Lecture	B.A.
2014	Generating functions, University of Prishtina, Republic of Kosovo	Lecture	B.A,M.A

B. Supervision of Graduate Students

Name of Stu- dent	Title of Thesis	Degree	Date of Com- pletion /in Progress	Student's Achievements
Sarhan Bas- sel	Probabilistic method and Compositions	M.A.	2006	Paper 69
Ayoub Mo- hamed	Combinatorics and 3-letter patterns	M.A.	2007	
Ghalib Nas- sar	Gray codes, loopless algo- rithms and Combinatorics	M.A.	2008	Paper 104
Nohad Mbarieky	Partitions of a set	M.A.	2009	Paper 119
Misson Falah	Combinatorics and composi- tions	M.A.	2010	Paper 154
Walaa Asakly	Geometric Random Variables and statistics	M.A.	2012	Excellence scholarship, Uri N. Peled Memorial Prize (20/05/2013), Dean Excel- lence (07/07/2013)
Kawakib Safe	Statistics on Dyck paths	M.A.	2014	Dorothy Bernstein's Prize (22/06/2014)
Ranya Rayan*	On differential equations in- volving a paragrassmann vari- able	М.А.	2019	Excellence scholar- ship(04/07/2018), Werner Otto Scholar- ship(17/04/2018), Dorty Bernshtein(25/06/2018), Prize of Uri N. Peled memorial, Paper 380

Name of Stu- dent	Title of Thesis	Degree	Date of Com- pletion /in Progress	Student's Achievements
Shahd Mhameed*	Differential Equations Involv- ing Caputo Fractional Deriva- tive	M.A.	2019	Prize of Dan Butnariu memorial, Dean Excellence
Mariam Kheoun [*] (with Haggai Katriel)	Investigating the effect of vac- cine against infectious disease using mathematical models	M.A.	2020	
Ghassan Firro	Distanced patterns	Ph.D.	2007	Papers 76, 113, 14
Ghalib Nas- sar	Gray codes, loopless algo- rithms and Combinatorics	Ph.D.	2011	Papers 148, 158
Tayeed El- jamal (with Parla Nshr)	Comparison among Five Arab States and Israel Concerning Math Textbooks in Grades 1st - 3rd	Ph.D.	2015	
Armend Sh. Shabani [*] (with Rex- hep Gjergji and Dervish Kamberi)	Statistics on some combinato- rial families	Ph.D.	2016	
Walaa Asakly*	Combinatorial structures and statistics	Ph.D.	2017	Papers 211, 238, 239
Orli Hershkoviz [*]	Application of umbral calculus and q -calculus methods to polynomial functions	Ph.D.	2018	Papers 268, 322, 321, 336, Prize of Uri N. Peled memo- rial (4000Sh), Ministry of Science, Technology & Space (250000Sh)

C. Supervision of PostDoc Students

Name of Student	Title of Thesis	Date of Comple- tion /in Progress	Student's Achieve- ments
Andrei Asinowski	Enumerative Combinatorics	2007	Papers 90, 136
Mark Shattuck	Combinatorial Structures	2010	Papers 135, 144, 146, 157, 161, 163, 169, 160
Mark Shattuck	Combinatorial Structures	2012	Papers 193-196, 198
David G.L. Wang	Combinatorial Structures, log concavity and real rooted	2014-2016	Papers 225, 233
Elumalai Suresh [*]	Invariants on Graph Theory	2018-2020	Papers 392,428,488,398, 408,409,493,441,424

II. PUBLICATIONS

- The authors presented by alphabetical order and equal contribution - # when he/she was my student

A. Ph.D. Dissertation_

- Title: Permutations with forbidden patterns.
- Language: English.
- Number pages: 142 pages.
- Date of the dissertation: 2001, June 21.
- Name of supervisor: Professor Alek Vainshtein.

B. Books

Authored Books - Published

 S. Heubach and T. Mansour, Combinatorics of compositions and words, Chapman & Hall/CRC an imprint of Taylor & Francis LLC, Discrete Mathematics and Its Applications Series, 2009 August, Series Editor Kenneth H. Rosen, 480+xxxiii pages.

This text gives an introduction to and an overview of the methods used in the combinatorics of pattern avoidance and pattern enumeration in compositions and words, a very active area of research in the last decade. The earliest results on enumeration of compositions appeared in a paper by P.A. MacMahon in 1893, while Axel Thue is credited with starting research on the combinatorics of words in a paper in 1906. MacMahon considered words in the context of partitions and permutations, while Thue approached words from a number theoretic background. In the decades that followed the main focus of research in enumerative combinatorics was on partitions and permutations, driven in part by MacMahon's prolific writing. Until the late 1960s, individual articles on various aspects of compositions appeared, but there was no concentrated research interest. This changed in the 1970s, when several groups of authors developed new research directions. They studied compositions and words that were restricted in some way, and not only enumerated the total number of these objects, but also certain of their characteristics (statistics). Another focus was the study of random compositions to obtain asymptotic results. Most publications on compositions and words have been within the last decade. Authors have studied various aspects of compositions and words, generalizing previous results and introducing new concepts. This book provides a comprehensive resource for anybody interested in this new area of research. The text aims to: (1) provide a self-contained, broadly accessible introduction to this research area; (2) introduce the reader to a variety of tools and approaches that are also applicable to other areas of enumerative combinatorics; (3) give an overview of the history of research on enumeration of and pattern avoidance in compositions and words; (4) showcase known and new results; and (5) provide a comprehensive and extensive bibliography.

2. T. Mansour, Combinatorics of Set Partitions, Chapman & Hall/CRC an imprint of Taylor & Francis LLC, Discrete Mathematics and Its Applications Series, 2012 August, Series Editor Kenneth H. Rosen, 516+xxxiii pages.

This book gives an introduction to and an overview of the methods used in the combinatorics of pattern avoidance and pattern enumeration in set partitions, a very active area of research in the last decade. The first known application of set partitions arose in the context of tea ceremonies and incense games in Japanese upper class society around A.D. 1500. Guests at a Kado ceremony would be smelling cups with burned incense with the goal to either identity the incense or to identity which cups contained identical incense. There are many variations of the game, even today. One particular game is named genji-ko and it is the one that originated the interest in set partitions. Five different incense were cut into five pieces, each piece put into a separate bag, and then five of these bags were chosen to be burned. Guests had to identify which of the five incense were the same. The Kado ceremony masters developed symbols for the different possibilities, so-called genji-mon. Each such symbol consists of five vertical bars, some of which are connected by horizontal bars. Fifty-two symbols were created, and for easier memorization, each symbol was identified with one of the fifty-four chapters of the famous *Tale of Genji* by Lady Murasaki. In time, these genji-mon and two additional symbols started to be displayed at the beginning of each chapter of the *Tale of Genji* and in turn became part of numerous Japanese paintings. They continued to be popular symbols for family crests and Japanese kimono patterns in the early 20th century, and can be found on T-shirts sold today.

Until the late 1960s, individual research papers on various aspects of set partitions appeared, but there was no focused research interest. This changed after the 1970s, when several groups of authors developed new research directions. They studied set partitions under certain set of conditions, and not only enumerated the total number of these objects, but also certain of their characteristics. Other focuses were the relation between the algebra and set partitions such as the noncrossing set partitions, the appearance of set partitions in physics where the number of set partitions is a good language to find explicit formula for normal ordering form of an expression of boson operators, and the study of random set partition to obtain asymptotics results. This book provides a comprehensive resource for anybody interested in this new area of research. It will combine the following in one place: (1) provide a self-contained, broadly accessible introduction to research in this area; (2) present an overview of the history of research on enumeration of and pattern avoidance in set partitions; (3) present several links between set partitions and other areas of mathematics, and in normal ordering form of expressions of boson operators in physics; (4) describe a variety of tools and approaches that are also useful to other areas of enumerative combinatorics; (5) suggest open questions for further research; and (6) provide a comprehensive and extensive bibliography.

3. T. Mansour and M. Schork, Commutation Relations, Normal Ordering and Stirling Numbers, Chapman & Hall/CRC an imprint of Taylor & Francis LLC, Discrete Mathematics and Its Applications Series, 2015, 528 pages.

This book focuses in a particular area where enumerative combinatorics interacts with mathematical physics. This area has become over the last years an active field with a number of different approaches and emphases. The text will provide a comprehensive bibliography, lay the foundation for each of the different directions of research, and discuss recent results. We will begin by the description with the Stirling numbers in the context of tea ceremonies and incense games in Japanese upper class society around A.D. 1500. This book gives an introduction to the combinatorial aspects of normal ordering in the Weyl algebra and its generalization defined by $UV - qVU = hV^s$. In addition to the combinatorial aspects we describe the relation to operational calculus. Also, the physical motivation as well as some physical applications will be sketched. To give a comprehensive account of this field of research and some of its ramifications, many additional topics will be treated in remarks (or problems). Although it is impossible to give an exhaustive or complete bibliography, we strive to give a comprehensive bibliography with many references to classical publications. This book provides a comprehensive resource for anybody interested in this new area of research. It will combine the following in one place: (1) Provides a broadly accessible introduction to research in this area; (2) Presents an overview of the history of research on commutation relations, normal ordering and Stirling numbers; (3) Discusses several links between commutation relations, normal ordering, Stirling numbers and other areas of mathematics and physics; (4) Describes a variety of tools and approaches that are also useful to other areas of enumerative combinatorics; (5) Deals with known and new results; (6) Mentions open questions for further research; and (7) Provides a comprehensive and extensive bibliography.

C. Articles in Refereed Journals.

2000-

- 1. **T. Mansour** and A. Vainshtein, Restricted permutations, continued fractions, and Chebyshev polynomials, *Electronic Journal of Combinatorics* **7** (2000) #R17 (9pp.).
- 2. **T. Mansour** and A. Vainshtein, Avoiding maximal parabolic subgroups of S_k , Discrete Mathematics and Theoretical Computer Science 4 (2000) 67–77.

2001

- T. Mansour and A. Vainshtein, Restricted 132-avoiding permutations, Advances in Applied Mathematics 26 (2001) 258–269.
- T. Mansour, Pattern avoidance in coloured permutations, Séminaire Lotharingien de Combinatoire 46 (2001) Article B46g (12pp.).
- 5. **T. Mansour**, Permutations avoiding a pattern from S_k and at least two patterns from S_3 , Ars Combinatoria 62 (2001) 227–239.
- T. Mansour and A. Vainshtein, Layered restrictions and Chebyshev polynomials, Annals of Combinatorics 5 (2001) 451–458.

-2002-

- T. Mansour and A. Vainshtein, Counting occurrences of 132 in a permutation, Advances in Applied Mathematics 28:2 (2002) 185–195.
- 8. A. Burstein and **T. Mansour**, Words restricted by patterns with at most 2 distinct letters, *Electronic Journal of Combinatorics* **9:2** (2002) #R3 (14pp.).
- T. Mansour and A. Vainshtein, Restricted permutations and Chebyshev polynomials, Séminaire Lotharingien de Combinatoire 47 (2002) Article B47c (17pp.).
- T. Mansour, Combinatorial identities and inverse binomial coefficients, Advances in Applied Mathematics 28:2 (2002) 196–202.
- T. Mansour, Continued fractions and generalized patterns, European Journal of Combinatorics 23:3 (2002) 329–344.
- 12. **T. Mansour**, Counting peaks at height k in a Dyck path, *Journal of Integer Sequences* **5** (2002) Article 02.1.1 (10pp.).
- O. Guibert and T. Mansour, Restricted 132-involutions, Séminaire Lotharingien de Combinatoire 48 (2002) Article B48a (23pp.).
- T. Mansour, Restricted 1-3-2 permutations and generalized patterns, Annals of Combinatorics 6 (2002) 65–76.
- 15. A. Claesson and **T. Mansour**, Counting occurrences of a pattern of type (1,2) or (2,1) in permutations, Advances in Applied Mathematics **29** (2002) 293–310.
- T. Mansour and J. West, Avoiding 2-letter signed patterns, Séminaire Lotharingien de Combinatoire 49 (2002) Article B49a (11pp.).
- 17. **T. Mansour** and A. Robertson, Refined Restricted permutations avoiding subsets of patterns of length three, *Annals of Combinatorics* **6:3** (2002) 407–418.

 O. Guibert and T. Mansour, Some statistics on restricted 132 involutions, Annals of Combinatorics 6:3-4 (2002) 349–374.

-2003-

- T. Mansour and Z. Stankova, 321-polygon-avoiding permutations and Chebyshev polynomials, *Electronic Journal of Combinatorics* 9:2 (2003) #R5 (16pp.).
- E. Egge and T. Mansour, Permutations which avoid 1243 and 2143, Continued Fractions, and Chebyshev Polynomials, *Electronic Journal of Combinatorics* 9:2 (2003) #R7 (35pp.).
- A. Burstein and T. Mansour, Counting occurrences of some subword patterns, Discrete Mathematics and Theoretical Computer Science 6:1 (2003) 1–12.
- A. Burstein and T. Mansour, Words restricted by 3-letter generalized multipermutation patterns, Annals of Combinatorics 7:1 (2003) 1–14.
- S. Kitaev and T. Mansour, Partially Ordered generalized patterns and k-ary words, Annals of Combinatorics 7:2 (2003) 191–200.
- T. Mansour, Restricted 132-alternating permutations and Chebyshev polynomials, Annals of Combinatorics 7:2 (2003) 201–227.
- A. Burstein, P. Hästö, and T. Mansour, Packing patterns in words, *Electronic Journal of Combinatorics* 9:2 (2003) #R20 (13pp.).
- T. Mansour, Coloured permutations containing and avoiding certain patterns, Annals of Combinatorics 7:3 (2003) 349–355.

- T. Mansour, Restricted 132-Dumont permutations, Australasian Journal of Combinatorics 29 (2004) 103–118.
- T. Mansour, Continued fractions, statistics, and generalized patterns, Ars Combinatoria 70 (2004) 265–274.
- 29. T. Mansour, Average norms of polynomials, Advances in Applied Mathematics 32:4 (2004) 698–708.
- 30. T. Mansour, Permutations restricted by patterns of type (2,1), Ars Combinatoria 71 (2004) 201–223.
- 31. S. Kitaev and T. Mansour, The problem of the pawns, Annals of Combinatorics 8:1 (2004) 81–91.
- T. Mansour, Equidistribution and sign-balance on 132-avoiding permutations, Séminaire Lotha- ringien de Combinatoire 51 (2004) Article B51e (11pp.).
- T. Mansour, Counting occurrences of 132 in an even permutation, International Journal of Mathematics and Mathematical Sciences 25 (2004) 1329–1341.
- T. Mansour, A formula for the generating functions of powers of Horadam's sequence, Australasian Journal of Combinatorics 30 (2004) 207–212.
- E. Egge and T. Mansour, 231-avoiding involutions and Fibonacci numbers, Australasian Journal of Combinatorics 30 (2004) 75–84.
- T. Mansour, Permutations containing a pattern exactly once and avoiding at least two patterns of three letters, Ars Combinatoria 72 (2004) 213–222.
- T. Mansour, Rational identities and inequalities, Journal of Inequalities in Pure and Applied Mathematics 5:3 (2004) Article 75 (11pp.).

- E. Egge and T. Mansour, Restricted 132-two-stack sortable permutations, Fibonacci numbers, and Pell numbers, *Discrete Applied Mathematics* 143:1–3 (2004) 72–83.
- G.L. Karakostas and T. Mansour, Sharp boundedness conditions for a difference equation via the Chebyshev polynomials, *Journal of Difference Equations and Applications* 10:11 (2004) 941–948.
- 40. **T. Mansour**, On an open problem of Green and Losonczy: exact enumeration of freely braided permutations, *Discrete Mathematics and Theoretical Computer Science* **6:2** (2004) 461–470.
- S. Heubach and T. Mansour, Compositions of n with parts in a set, Congressus Numerantium 168 (2004) 127–143.

- 42. T. Mansour, Squaring the terms of an ℓ^{th} order linear recurrence, Australasian Journal of Combinatorics **31** (2005) 15–20.
- S. Kitaev and T. Mansour, Simultaneous avoidance of generalized patterns, Ars Combinatoria 75 (2005) 267–288.
- S. Kitaev and T. Mansour, On multi-avoiding of generalized patterns, Ars Combinatoria 76 (2005) 321–350.
- S. Kitaev, T. Mansour, and P. Séébold, Generating the Peano curve and counting occurrences of some patterns, Journal of Automata, Languages and Combinatorics 9:4 (2004) 439–455.
- S. Kitaev and T. Mansour, Linear recurrences and Chebyshev polynomials, *The Fibonacci Quarterly* 43.3 (2005) 256–261.
- T. Mansour, Generalizations of some identities involving the Fibonacci numbers, The Fibonacci Quarterly 43:4 (2005) 307–315.
- A. Claesson and T. Mansour, Enumerating permutations avoiding a pair of Babson-Steingrím- sson patterns, Ars Combinatoria 77 (2005) 17–31.
- 49. E. Egge and **T. Mansour**, Restricted permutations, Fibonacci numbers, and k-genera- lized Fibonacci numbers, *Integers: Electronic Journal of Combinatorial Number Theory* **5** (2005) Article A1 (12pp.).
- S. Kitaev, T. Mansour, and A. Vella, Pattern avoidance in matrices, *Journal of Integer Sequences* 8:2 (2005) Article 2 (16pp.).
- 51. P. Brändén and **T. Mansour**, Finite automata and pattern avoidance in words, *Journal Combinatorial Theory Series A* **110:1** (2005) 127–145.
- C. Bebeacua, T. Mansour, A. Postnikov, and S. Severini, On the X-rays of permutations, *Electronic Notes in Discrete Mathematics* 20 (2005) 193–203.
- 53. S. Heubach and **T. Mansour**, Counting rises, levels, and drops in compositions, *Integers: Electronic Journal of Combinatorial Number Theory* **5** (2005) Article A11 (24pp.).

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- 54. S. Elizalde and **T. Mansour**, Restricted Motzkin permutations, Motzkin paths, Continued fractions, and Chebyshev Polynomials, *Discrete Mathematics* **305:1-3** (2006) 170–189.
- 55. T. Mansour, Statistics on Dyck paths, Journal Integer of Sequences 9:1 (2006) Article 06.1.5 (13pp.).
- S.L. Braunstein, S. Ghosh, T. Mansour, S. Severini, and R.C. Wilson, Some families of density matrices for which separability is easily tested, *Physical Review A* 73 (2006) 012320, 1–10.

- 57. E. Egge and **T. Mansour**, Bivariate generating functions for involutions restricted by 3412, Advances in Applied Mathematics **36:2** (2006) 118–137.
- S. Heubach and T. Mansour, Avoiding patterns of length three in compositions and multisets, Advances in Applied Mathematics 36:2 (2006) 156–174.
- T. Mansour, Restricted 132-avoiding k-ary words, Chebyshev polynomials, and Continued fractions, Advances in Applied Mathematics 36:2 (2006) 175–193.
- T. Mansour, Sherry H.F. Yan, and Laura L.M. Yang, Counting occurrences of 231 in an involution, Discrete Mathematics 306:6 (2006) 564–572.
- Qing-Hu Hou and T. Mansour, Horse paths, restricted 132-avoiding permutations, continued fractions, and Chebyshev polynomials, *Discrete Applied Mathematics* 154:8 (2006) 1183–1197.
- #G. Firro and T. Mansour, Three-letter-pattern-avoiding permutations and functional equations, *Electronic Journal of Combinatorics* 13 (2006) #R51 (14pp.).
- T. Mansour, Eva Y.P. Deng, and Rosena R.X. Du, Dyck paths and restricted permutations, *Discrete Applied Mathematics* 154:11 (2006) 1593–1605.
- T. Mansour, Restricted even permutations and Chebyshev polynomials, *Discrete Mathematics* 306:12 (2006) 1161–1176.
- T. Mansour, Combinatorial methods and recurrence relations with two indices, Journal of Difference Equations and Applications 12:6 (2006) 555–563.
- A. Burstein, S. Elizalde, and T. Mansour, Restricted Dumont permutations, Dyck paths, and noncrossing partitions, *Discrete Mathematics* 306:22 (2006) 2851–2869.
- V. Jelínek, Nelson Y. Li, T. Mansour, and Sherry H. F. Yan, Matchings avoiding partial patterns and lattice paths, *Electronic Journal of Combinatorics* 13 (2006) #R89 (12pp.).
- 68. **T. Mansour**, The enumeration of permutations whose posets have a maximal element, Advances in Applied Mathematics **37:4** (2006) 434–442.
- T. Mansour and #B.O. Sirhan, Counting ℓ-letter subwords in compositions, Discrete Mathematics and Theoretical Computer Science 8 (2006) 285–298.
- W. Y. C. Chen, T. Mansour, and S. H. F. Yan, Matchings avoiding partial patterns, *Electronic Journal of Combinatorics* 13 (2006) #R112 (17pp.).
- S. Heubach and T. Mansour, Staircase Tilings and Lattice Paths, Congressus Numerantium 182 (2006) 97–109.
- S. Heubach, S. Kitaev, and T. Mansour, Avoidance of partially ordered patterns and compositions, *Pure Mathematics and Applications* 17(1-2) (2006) 123–134.

- 73. **T. Mansour**, Recurrence relations with two indices and Even trees, *Journal of Difference Equations* and Applications **13(1)** (2007) 47–61.
- 74. E. Bagno, D. Garber, and **T. Mansour**, Excedance number for involutions in complex reflection groups, Séminaire Lotharingien de Combinatoire **56** (2007) Article B56d (11pp.).
- T. Mansour, M. Schork, and S. Severini, A generalization of the boson normal ordering, *Physics Letters A* 364:3-4 (2007) 214–220.

- #G. Firro, T. Mansour, and M. Wilson, Longest alternating subsequences in pattern-restricted permutations, *Electronic Journal of Combinatorics* 14 (2007) #R34 (18pp.).
- T. Mansour and V. Vajnovszki, Restricted 123-Baxter permutations and Padovan numbers, *Discrete Applied Mathematics* 155:11 (2007) 1430–1440.
- T. Mansour, M. Schork, and S. Severini, Wick's theorem for q-deformed boson operators, Journal of Physics A: Mathematical and Theoretical 40 (2007) 8393–8401.
- 79. **T. Mansour**, M. Schork, and Y. Sun, Motzkin numbers of higher rank: Generating function and explicit expression, *Journal of Integer Sequences* **10** (2007) Article 07.7.4 (11pp.).
- B. Furtula, I. Gutman, T. Mansour, S. Radenkovi, and M. Schork, Relating Estrada index with spectral radius, *Journal of the Serbian Chemical Society* 72:12 (2007) 1371–1376.
- E. Gökçen Alptekin, T. Mansour, and N. Tuglu, Norms of Circulant and Semicirculant matrices and Horadam's sequence, Ars Combinatoria 85 (2007) 353–359.
- W. M. B. Dukes and T. Mansour, Signed involutions avoiding 2-Letter signed patterns, Annals of Combinatorics 11:3-4 (2007) 387–403.

- T. Mansour, Longest alternating subsequences of k-ary words, Discrete Applied Mathematics 156:1 (2008) 119–124.
- Nancy Gu, Nelson Y. Li, and T. Mansour, 2-binary trees: bijections and related issues, *Discrete Mathematics* 308:7 (2008) 1209–1221.
- Eva Y.P. Deng and T. Mansour, Three Hoppy path problems and ternary paths, *Discrete Applied Mathematics* 156 (2008) 770–779.
- Nelson Y. Li and T. Mansour, An identity involving Narayana numbers, European Journal of Combinatorics 29:3 (2008) 672–675.
- Q. Hou and T. Mansour, Kernel Method and Linear Recurrence System, Journal of Computational and Applied Mathematics 261:1 (2008) 227–242.
- T. Mansour, M. Schork, and S. Severini, Noncrossing normal ordering for functions of bosons, *Inter*national Journal of Theoretical Physics 47 (2008) 832–849.
- 89. **T. Mansour** and Y. Sun, On the number of combinations without certain separations, *European Journal* of Combinatorics **29(5)** (2008) 1200–1206.
- #A. Asinowski and T. Mansour, Dyck paths with coloured ascents, European Journal of Combinatorics 29(5) (2008) 1262–1279.
- W. M. B. Dukes, T. Mansour, and A. Reifegerste, Wilf classification of three and four letter signed patterns, *Discrete Mathematics* 308:15 (2008) 3125–3133.
- T. Mansour and S. Severini, Enumeration of (k, 2)-noncrossing partitions, Discrete Mathematics 308:20 (2008) 4570–4577.
- T. Mansour and Y. Sun, Bell Polynomials and k-generalized Dyck Paths, Discrete Applied Mathematics 156:12 (2008) 2279–2292.
- S. Heubach, Nelson Y. Li, and T. Mansour, Staircase Tilings and k-Catalan Structures, Discrete Mathematics 308:24 (2008) 5954–5953.

- 95. S. Kitaev, T. Mansour, and P. Séébold, Counting ordered patterns in words generated by morphisms, Integers: Electronic Journal of Combinatorial Number Theory 8 (2008) Article A3 (28pp.).
- T. Mansour and M. Schork, On the normal ordering of multi-mode boson operators, Russian Journal of Mathematical Physics 15:1 (2008) 51–60.
- 97. T. Mansour, Longest alternating subsequences in pattern-restricted k-ary words, Online Journal of Analytic Combinatorics 3 (2008) #5 (10pp.).
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1	1	Richard P. Stanley, Noga Alon, Doron Zeilberger, Don Knuth
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	2	Anne Schilling, Stuart Whittington

F. ECA Interviews_

G. Articles Submitted for Publication in Refereed Journals_

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- 2. I. Kotsireas, **T. Mansour** and G. Yıldırım, An algorithmic approach based on generating trees for enumerating pattern-avoiding inversion sequences and set partitions.
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- 11. T. Mansour, Five classes of pattern avoiding inversion sequences under one roof: generating trees.
- 12. D. Callan, V. Jelínek, and T. Mansour, Inversion sequences avoiding a triple of patterns of 3 letters.
- 13. T. Mansour and G. Yıldırım, Inversion sequences avoiding 021 and another pattern of length four.
- 14. D. Callan and T. Mansour, Three classes of inversion sequences counted by large Schröder numbers.
- 15. **T. Mansour**, Inversion sequences avoiding a pair of patterns of type (2, 1).
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