

# CURRICULUM VITAE

## Prof. Vadim (David) E. Levit

### Personal Information

**Date of Birth** February 20, 1958  
**Family** Married + 3

### Business Information

Department of Computer Science  
Ariel University  
Ariel 40700, ISRAEL

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### Research Interests

**Combinatorial and Algorithmic Mathematics:** *Graph Theory, Combinatorial Optimization, and Data Science.*

### Major Accomplishments

- *Combinatorial and Algorithmic properties of the family of Stable Sets of a Graph;*
- A *Combinatorial* framework for *Dynamic Programming* and *Local-Optimal Search* based on the **Matroid** and **Greedoid** Theory;
- *Symbolic computations* on **Graphs** and **Networks**;
- Algorithms for *Cluster Analysis in High-Dimensional Feature Spaces*;
- *Syndrome Analysis* - A Mathematical Framework for **Knowledge Representation** in **Multidimensional Feature Spaces**;
- An approach to the *Cocktail-Party Noise* problem;
- A *Programming Language* for **Data Collecting** and **Learning Expert Systems**.

### Publications

Over **165** refereed publications, including a *book* (with a co-author):  
*Structure and Field of Data for Pattern Recognition*,  
V.S. Gurfinkel and V.V. Zyablov (ed.), Moscow, Nauka (Science Press), 1984, 124 pp.

### Editorial Activities

- 2013-present** Member of the Editorial Board of **Scientific World Journal** as part of the Journal's **Operations Research** area.
- 2012-present** Member of the Editorial Board of *Journal of Discrete Mathematics*.
- 2011-present** Member of the Editorial Board of *Axioms*.
- 2011** Guest Editors: Marina Lipshteyn, Andreas Brandstadt, Haim Kaplan, Vadim E. Levit, Ross M. McConnell, a special issue "*Graphs, Algorithms and Their Applications*" of *Discrete Applied Mathematics* Volume **159** Issue **7**.
- 2009** Graph Theory, Computational Intelligence and Thought, Essays Dedicated to Martin Charles Golumbic on the Occasion of His 60th Birthday, Lipshteyn, Marina; Levit, Vadim E.; McConnell, Ross (Eds.) – **LNCS 5420**, Springer.

### University Committees

- 2012-2016** *Member of the Appointment and Tenure Committee*  
Ariel University, ISRAEL
- 2009-2012** *Internet Committee Chair*  
Ariel University, ISRAEL

### Education

- 1969-1972 pupil, Selective School #116 with **Mathematical** and **Physical** bias, Odessa, USSR  
1972-1976 Faculty of **Mathematics** and Mechanics, Odessa State University, USSR  
1976-1979 M.Sc., Faculty of **Mathematics**, Moscow State Pedagogical Institute, USSR  
1979-1982 graduate student, Department of **Functional Analysis**,  
Faculty of **Mathematics**, Moscow State Pedagogical Institute, USSR  
1988 **Ph.D.** in **Computer Science**, the Institute for Problems of Information  
Transmission, USSR Academy of Sciences, Moscow, USSR

### Administrative Positions

- 2012-2016 *Dean of the School of Graduate Studies*, Ariel University, ISRAEL  
2008-2015 *Head of the Department of Computer Science and Mathematics*,  
Ariel University, ISRAEL  
2007-2009 *Head of the Department of Industrial Engineering and Management*  
Ariel University, ISRAEL  
2000-2005 *Head of the Department of Computer Science*  
Holon Institute of Technology, ISRAEL  
1996-1997 *Deputy Head of the Department of Computerized Systems*  
Holon Institute of Technology, ISRAEL  
1993-1995 *Division Level Director, Industrial Mathematics Unit*,  
Bar-Ilan University, Ramat-Gan, ISRAEL

### Academic Positions

- 2015-present *Full Professor with Tenure*  
Department of **Computer Science**  
Ariel University, ISRAEL  
2011-2015 *Full Professor with Tenure*  
Department of **Computer Science and Mathematics**  
Ariel University, ISRAEL  
2008-2011 *Associate Professor*  
Department of **Computer Science and Mathematics**  
Ariel University, ISRAEL  
2006-2008 *Visiting Associate Professor*  
Departments of:  
**Computer Science and Mathematics, Industrial Engineering and Management**  
Ariel University Center of Samaria, ISRAEL  
2006-2007 *Adjunct Associate Professor*, Department of **Computer Science**  
Open University, Raanana, ISRAEL  
2004-2008 *Associate Professor with Tenure*  
Department of **Computer Science**  
Holon Institute of Technology, Holon, ISRAEL  
1999-2004 *Senior Lecturer*  
Department of **Computer Science**  
Holon Institute of Technology, Holon, ISRAEL  
1997-1999 *Senior Lecturer*  
1996-1997 *Visiting Lecturer*  
1994-1996 *Instructor*  
Department of **Computer Systems**, Center for Technological  
Education affiliated with the Tel-Aviv University, Holon, ISRAEL  
1993-2002 *Adjunct Lecturer*  
1991-1993 *Postdoctoral Fellowship Researcher*  
Department of **Mathematics and Computer Science**, Bar-Ilan University,  
Ramat-Gan, ISRAEL  
1988-1991 *Research Staff Member*, Laboratory of **Self-Learning Systems**  
1983-1988 *Research Staff Member*, Laboratory of **Pattern Recognition**  
Institute for Problems of Information Transmission,  
USSR Academy of Sciences, Moscow

### Teaching Experience

1991-present

Undergraduate: Introduction to *Computing*, Introduction to *Computer Science*, *Data Structures*, Introduction to *Algorithms*, *Design and Analysis of Algorithms*, *Algorithms 1*, *Algorithms 2*, *Discrete Mathematics*, *Numerical Analysis*, Introduction to *Operations Research*, Seminar on *Algorithms*, *Scientific and Parallel Computing*, *Graph Theory Applications*, Seminar on *Combinatorial Optimization*.

Graduate: *Parallel Computing*, *Parallel Algorithms*, *Combinatorial Optimization*, *Data Analysis*.

### Graduate Students

- 2012-2015 M. Sc.: Or Kadraawi, "Assignment Algorithms for Web Negotiations", Bar-Ilan University, ISRAEL. (together with Prof. Sarit Kraus)
- 2001-2005 Ph. D.: Mark Korenblit, "Efficient Computations on Networks", Bar-Ilan University, ISRAEL. (together with Prof. Marty Golumbic)
- 2003-2005 M. Sc.: Orly Bialer, "New Sequential and Parallel Algorithms for all Longest Common Subsequences for Multiple Strings", Bar-Ilan University, ISRAEL. (together with Prof. Moshe Lewenstein)

### Awards and Grants

- 2014 *the Outstanding Scientist Award* (Ministry of Aliyah and Immigrant Absorption)
- 2013-2014 *Gait Analysis for Human Behavior Recognition* (an internal grant supported by the Ariel University)
- 2012-2013 *the outstanding faculty member award* (Ariel University)
- 2008-2013 *Top 20% faculty member awards* (Ariel University)
- 2010-2011 *Didactic Typology in Mathematics Education* (an internal grant supported by the Ariel University Center of Samaria)
- 2007 The paper "*Independence Polynomials of Well-Covered Graphs: Generic Counterexamples for the Unimodality Conjecture*" is included in *Top 25 Hottest articles* of the European Journal of Combinatorics
- 2006-2007 *Embedded Systems on a Chip*, a grant supported by Israeli Ministry of Industry and Trade (together with Prof. S. Baranov)
- 2005-2006 *Outstanding faculty member awards* (Holon Institute of Technology)
- 2004-2005 *Embedded Systems*, a grant supported by Israeli Ministry of Industry and Trade (together with Dr. M. Peleh)
- 1993-1995 *Mathematical Structure of Combinatorial Algorithms*  
A grant supported by Israeli Academy of Sciences (together with Prof. M. Golumbic)
- 1992-1994 *Wolfson* fellowship
- 1983-1989 *Prizes* in the Institute for Problems of Information Transmission, USSR Academy of Sciences, and in the Institute for Problems of Control, USSR Academy of Sciences competitions for the best *Scientific Paper* in *Mathematics* and *Computer Science*
- 1986 *A medal* from the "Scientific-Technical Progress-86" exhibition
- 1976 *Prizes* in the USSR and Moscow State Pedagogical Institute student *Mathematical* competitions for *the best Scientific Paper*
- 1973 *The first* prize in the Odessa State University *Mathematical* competition
- 1969-1971 *Prizes* in Odessa region *Mathematical* competitions

### Memberships in Societies

- 2002-2012 FTICA (Fellow) of  
ICA (*The Institute of Combinatorics and its Applications*)
- 2008-2010 SIAM (*Society for Industrial and Applied Mathematics*)
- 1997-2002 AFTICA (Associate Fellow) of  
ICA (*The Institute of Combinatorics and its Applications*)
- 1998-2002 SIAM (*Society for Industrial and Applied Mathematics*)

### Exhibitions

Scientific-Technical Progress-86 in Moscow with a special program package named *Doctor's Adviser*

### Consulting Experience

1997-2000      ECI Telecom Ltd.

#### Programming and Organizing Committees

- 2017 - ***International Symposium on Computational and Applied Mathematics (ISCAM 2017)***  
- held at the International Asia-Pacific Convention Center, Sanya, China.
- 2017 - ***Interdisciplinary Applications of Graph Theory, Combinatorics, and Algorithms***  
17<sup>th</sup> Haifa Workshop - held at the Caesarea Rothschild Institute, University of Haifa.
- 2008 - ***Theory, Computational Intelligence and Thought***  
A Conference Celebrating Martin Charles Golombic's 60th Birthday  
- held at the Caesarea Rothschild Institute, University of Haifa.
- 2008 - ***Fifth International Conference on Mathematical Modeling and Computer Simulations of Materials Technologies (MMT-2008)***  
- held at the Ariel University Center of Samaria, Israel.
- 2007 - ***Interdisciplinary Applications of Graph Theory, Combinatorics, and Algorithms***  
7<sup>th</sup> Haifa Workshop - held at the Caesarea Rothschild Institute, University of Haifa.
- 2004 - ***Homeland Security***, Workshop - held at the Holon Institute of Technology
- 2004 - ***Advanced Methods of Complex Systems Development***  
Workshop - held at the Holon Institute of Technology
- 2003 - ***Interdisciplinary Applications of Graph Theory, Combinatorics, and Algorithms***  
Third Haifa Workshop - held at the Caesarea Rothschild Institute, University of Haifa.
- 1997 - ***Discrete and Computational Mathematics***,  
Workshop in Honor of Prof. George Adelson-Velsky  
held at the Bar-Ilan University, Ramat-Gan, Israel.
- 1996 - ***Intelligent Scheduling of Robots and Flexible Manufacturing Systems***  
International Workshop - held at the Center for Technological Education Holon.

## Theses, Monographs, and Books

1. Levit, V. E. (1979). *Local Systems of Axioms*, M.Sc. Thesis, Department of Mathematics, Moscow State Pedagogical Institute, Moscow. Thesis advisors: Dr. Arnold Bloh and Prof. Dmitry Raikov
2. Levit, V. E. and Pereversev-Orlov, V. S. (1981). *Interaction between the Field and the Structure of Data for Development of Pattern Recognition Methods*, preprint, Institute for Problems of Information Transmission, USSR Academy of Sciences, Moscow, 48 pp. (in Russian)
3. Levit, V. E. and Pereversev-Orlov, V. S. (1981). *Structure of Data and Dialogue with an Expert as Basic Tools to Cope with Paradoxes of Pattern Recognition*, preprint, Institute for Problems of Information Transmission, USSR Academy of Sciences, Moscow, 37 pp. (in Russian)
4. Levit, V. E. and Pereversev-Orlov, V. S. (1984). *Structure and Field of Data for Pattern Recognition*, V.S. Gurfinkel and V.V. Zyablov (ed.), Moscow, Nauka (Science Press), 124 pp. (in Russian)
5. Levit, V. E. (1988). *An Interactive Search of Regularities in High-Dimensional Data for Recommender Systems*, Ph.D. Thesis, Institute for Problems of Information Transmission, USSR Academy of Sciences, Moscow. Thesis advisor: Prof. Viktor Zyablov

## Chronological List of Research Papers

All of the journals, chapters in books, and conference proceedings listed below are refereed.

### 1977

1. Levit, V. E. (1977). *On One Ulam's Problem*, Uspehi Matematicheskikh Nauk, (Advances in Mathematical Sciences) **Vol. 32**, No. 1, 157 – 157. (in Russian)

### 1979

2. Levit, V. E. (1979). *Topologies in Categories*, Proceedings of the 17<sup>th</sup> USSR Science Student Conference, Novosibirsk, 76 – 83. (in Russian)

### 1984

3. Levit, V. E. (1984). *On the Separability of an Additive Mixture of Overlapping by Spectrum and Time Signals*, in the book: “Analysis of Complex Information Systems”, **Vol. 1**, IPIT USSR Ac. of Sc., Moscow, 25 – 28. (in Russian)
4. Levit, V. E. (1984). *HAND - an Interactive Program for Search of Syndromes*, in the book: “Analysis of Complex Information Systems”, **Vol. 2**, IPIT USSR Ac. of Sc., Moscow, 48 – 51. (in Russian)

### 1986

5. Levit, V. E. (1986). *QUEST - a Questionnaires-Transmission-to-Dialogue-Programs Language*, Proceedings of the USSR Young Scientists and Experts Seminar on Informatics and Computer Science, Moscow, Nauka (Science Press), 57 – 58. (in Russian)
6. Levit, V. E. (1986). *QUEST - a Problem-Oriented Language and Interpreter for Transforming of the Texts of Questionnaires to Dialogue Programs*, in the book: “Data Processing in Information Systems”, **Vol. 1**, IPIT USSR Ac. of Sc., Moscow, 12 – 15. (in Russian)
7. Levit, V. E. (1986). *Search of Syndromes and their Approximation in the Nominal Features Space*, in the book: “Data Processing in Information Systems”, **Vol. 2**, IPIT USSR Ac. of Sc., Moscow, 46 – 49. (in Russian)
8. Weinstock, A. P. and Levit, V. E. (1986). *On the Membership-to-Class-Function Continuity with Respect to Hamming Metric in Pattern Recognition Methods Based on Voting*, in the book: “Data Processing in Information Systems”, **Vol. 2**, IPIT USSR Ac. of Sc., Moscow, 40 – 43. (in Russian)

## 1987

9. Levit, V. E. (1987). *Analysis of Data by Syndromes for Expert Systems Design*, Proceedings of the 2<sup>nd</sup> International Conference (PERSCOMP-87), Bulgaria, **Vol. 2**, 141–145. (in Russian)
10. Levit, V. E. and Pereversev-Orlov, V. S. (1987). *On Modeling*, in the book: “Intellectual Processes and Their Modeling”, E. P. Velihov and A. V. Chernavskii (ed.), Moscow, Nauka (Science Press), 294 – 299. (in Russian)

## 1988

11. Vashenko, E. A. and Levit, V. E. (1988). *An Extension of the Language QUEST*, Proceedings of the USSR Conference (DIALOGUE-87), Tbilisi, Metsniereba Pub., 348 – 351. (in Russian)
12. Levit, V. E. (1988). *Syndrome Analysis for Expert System Designing*, Proceedings of the USSR Conference on Problems of Expert Systems Design, **Vol. 2**, Moscow, 173 – 174. (in Russian)
13. Levit, V. E. (1988). *An Algorithm of Searching the Maximal Perimeter Submatrix Consisting of Only Identity Elements of a Zero-One Matrix*, in the book: “Information Transmission and Processing Systems”, **Vol. 1**, IPIT USSR Ac. of Sc., Moscow, 42 – 45. (in Russian)
14. Bagotskaya, N. V., Levit, V. E. and Losev, I. S. (1988). *On One Generalization of Matroids Insuring Applicability of Dynamic Programming Method*, in the book: “Information Transmission and Processing Systems”, **Vol. 2**, IPIT USSR Ac. of Sc., Moscow, 33 – 36. (in Russian)
15. Serganova, V. V., Bagotskaya, N. V., Levit, V. E. and Losev, I. S. (1988). *Greedoids and the Greedy Algorithm*, in the book: “Information Transmission and Processing Systems”, **Vol. 2**, IPIT USSR Ac. of Sc., Moscow, 49 – 52. (in Russian)

## 1989

16. Levit, V. E. and Shatzman, V. S. (1989). *On One 3-Metric Space*, in the book: “Information Transmission and Processing Methods”, IPIT USSR Ac. of Sc., Moscow, 5 – 7. (in Russian)
17. Levit, V. E. (1989). *Parallel Architecture for Computations Using Functions of Two Variables*, in the book: “Information Transmission and Processing Methods”, IPIT USSR Ac. of Sc., Moscow, 39 – 41. (in Russian)
- 18.1. Bagotskaya, N. V., Levit, V. E. and Losev, I. S. (1989). *A Combinatorial Structure Insuring Applicability of Dynamic Programming Method*, Automation and Remote Control, **Vol. 10**, 131–139. (in Russian)

## 1990

- 18.2. Bagotskaya, N. V., Levit, V. E. and Losev, I. S. (1990). *A Combinatorial Structure Insuring Applicability of Dynamic Programming Method*, Automation and Remote Control, Vol. 10, Automation and Remote Control, **Vol. 50**, 10, Part 2, 1414 – 1420, (English Translation)
19. Levit, V. E. and Muchnik, I. B. (1990). *Set Functions as a Mathematical Formalism for Decision Support Problems*, Proceedings of the USSR Conference on Combinatorial-Statistical Methods of Information Processing and Analysis, Odessa Polytechnic Institute Press, Odessa, 26 – 34. (in Russian)

## 1995

20. Levit, V. E. and Korenblit, M. (1995). *Symbolic PERT and its Generalizations*, Intelligent Scheduling of Robots and Flexible Manufacturing Systems, Proceedings of the International Workshop held at the Center for Technological Education Holon, E. Levner (ed.), 65 – 80.
21. Levner, E., Katz, V. and Levit, V. E. (1995). *An Improved Algorithm for a Cyclic Robotic Flowshop Scheduling Problem*, Intelligent Scheduling of Robots and Flexible Manufacturing Systems, Proceedings of the International Workshop held at the Center for Technological Education Holon, E. Levner (ed.), 129 – 141.

## 1996

22. Levit, V. E. and Spigel, Ya. (1996). *An Approach to Successful Software-Thinkware Interaction*, Proceedings of the 13<sup>th</sup> International Conference on Technology and Education (ICTE'96), New-Orleans, Louisiana, USA, **Vol. 2**, 611 – 613.
23. Korenblit, M., Zlotnikov, Y. and Levit, V. E. (1996). *Topological Transformations in Application to Computer Networks Protocols*, Proceedings of the 4<sup>th</sup> International Conference on Telecommunications Systems, Modeling and Analysis, Nashville, TN, USA, 87–96.
24. Levit, V. E. and Recheshter, A. (1996). *A Modification of the Quickest Path Problem for Communication Networks*, Proceedings of the International Conference on Distributed Computer Communication Networks (DCCN'96) (Theory and Applications), Tel-Aviv, Israel, 170 – 173.
25. Levit, V. E. and Korenblit, M. (1996). *A Symbolic Approach to Scheduling of Robotic Lines*, Intelligent Scheduling of Robots and Flexible Manufacturing Systems, Proceedings of the International Workshop held at the Center for Technological Education Holon, E. Levner (ed.), 113 – 125.

## 1997

26. Cherniaev, V., Goot, R., Levit, V. E. and Shust, V. (1997). *A Fuzzy Approach to Comparison of Severe Diseases Treatments*, Proceedings of the International Conference on Fuzzy Logic and Applications (FUZZY'97), Zihron-Yaakov, Israel, 273 – 279.
27. Levit, V. E. and Spigel, Ya. (1997), *Teaching Mathematics Using Mathematica*, Proceedings of the 14<sup>th</sup> International Conference on Technology and Education (ICTE'97), University of Oslo, Oslo, Norway, **Vol. 2**, 626 – 628.
28. Aizenberg, L., Adamchik, V. and Levit, V. E. (1997). *Approaching the Riemann Hypothesis with Mathematica*, the Mathematica Journal, **Vol. 7**, No. 1, 54 – 57.
29. Kogan, K., Stub, A. and Levit, V. E. (1997). *DRAP - The Dynamic Generalized Assignment Problem*, Annals of Operations Research: Mathematics of Industrial Systems, **Vol. 69**, 227 – 239.
30. Levner, E., Katz, V. and Levit, V. E. (1997). *An Improved Algorithm for Cyclic Flowshop Scheduling in a Robotic Cell*, European Journal of Operational Research, **Vol. 97**, 500 – 508.
31. Levit, V. E. and Mandrescu, E. (1997). *On  $\alpha$ -Stable Graphs*, Congressus Numerantium, **Vol. 124**, 33 – 46.

## 1998

32. Goot, R. and Levit, V. E. (1998), *Performance of Frequency Adaptive Radiotelecommunication Systems*, Proceedings of 9<sup>th</sup> Mediterranean Electrotechnical Conference (MELECON'98), Dan-Panorama Hotel, Tel-Aviv Israel, **Vol. 2**, 797 – 801.
33. Fainstein, V. M., Goot, R. and Levit, V. E. (1998), *Forming a Narrow-Band Random Process with Prescribed Statistical Properties of its Envelope*, Proceedings of International Conference on Telecommunications (ICT'98), Porto Carras, Greece, **Vol. 4**, 443 – 445.
34. Levit, V. E. and Mandrescu, E. (1998). *On Hereditary Properties of Composition Graphs*, Discussiones Mathematicae: Graph Theory, **Vol. 18**, 183 – 195.
35. Levin, I. and Levit, V. E. (1998). *Controlware for Learning using Mobile Robots*, Computer Science Education, **Vol. 8**, No. 3, 181 – 196.
36. Levit, V. E. and Mandrescu, E. (1998). *Well-Covered and Koenig-Egervary Graphs*, Congressus Numerantium, **Vol. 130**, 209 – 218.

## 1999

37. Levit, V. E., Nodelman, V. and Spigel, Ya. (1999), *Interactive Software Support for Teaching Calculus*, Proceedings of the 16<sup>th</sup> International Conference on Technology and Education (ICTE'99), Edinburg, Scotland, 102 – 104.
38. Aizenberg, L., Adamchik, V. and Levit, V. E. (1999). *On One Computational Approach in Support of the Riemann Hypothesis*, Computers and Mathematics with Applications, **Vol. 37**, 87-94.
39. Levit, V. E. and Mandrescu, E. (1999). *Well-Covered Trees*, Congressus Numerantium, **Vol. 139**, 102 – 112.

## 2000

40. Goot, R. and Levit, V. E. (2000), *BER of Frequency Adaptive Radiotelecommunication Systems with Sounding Signals*, Proceedings of the 34<sup>th</sup> Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, California, **Vol. 2**, 1801 – 1805.
41. Levit, V. E. and Mandrescu, E. (2000). *On  $\alpha^{++}$ -Stable Graphs*, *Congressus Numerantium*, **Vol. 142**, 207 – 219.

## 2001

42. Levit, V. E. and Mandrescu, E. (2001). *Unicycle Bipartite Graphs with only Uniquely Restricted Maximum Matchings*, *Combinatorics, Computability and Logic: Proceedings of the 3<sup>rd</sup> International Conference on Combinatorics, Computability and Logic (DMTCS'01)*, University of Auckland, New Zealand, "Ovidius" University, Constanta, Romania, Constanta, Romania, Springer Series: Discrete Mathematics and Computer Science, 151 – 157.
43. Levit, V. E. and Mandrescu, E. (2001). *On the Structure of  $\alpha$ -Stable Graphs*, *Discrete Mathematics*, **Vol. 236**, 227 – 243.

## 2002

44. Korenblit, M. and Levit, V. E. (2002). *The st-Connectedness Problem for a Fibonacci Graph*, Proceedings of the 3<sup>rd</sup> WSEAS International Conference on Theoretical and Applied Mathematics, (ADISC'2002), Hotel Amber Baltic, Miedzyzdroje, Wolin Island, Poland, 1391 – 1395.
45. Korenblit, M. and Levit, V. E. (2002). *On Sizes of Mincuts in a Fibonacci Graph*, Proceedings of the 4<sup>th</sup> WSEAS International Conference on Applied Mathematics and Computer Science (AMCS'2002), Rio de Janeiro, Brasil, 2261 – 2265.
46. Levit, V. E. and Mandrescu, E. (2002). *Combinatorial Properties of the Family of Maximum Stable Sets of a Graph*, *Discrete Applied Mathematics*, **Vol. 117/1-3**, 149 – 161.
47. Boros, E., Golumbic, M.C. and Levit, V. E. (2002). *On the Number of Vertices Belonging to all Maximum Stable Sets of a Graph*, *Discrete Applied Mathematics*, **Vol. 124/1-3**, 17 – 25.
48. Levit, V. E. and Mandrescu, E. (2002). *A New Greedoid: the Family of Local Maximum Stable Sets of a Forest*, *Discrete Applied Mathematics*, **Vol. 124/1-3**, 91 – 101.
49. Korenblit, M. and Levit, V. E. (2002). *The st-Connectedness Problem for a Fibonacci Graph*, *WSEAS Transactions on Mathematics*, **Vol. 1**, Issue 2, 89 – 93.
50. Levit, V. E. and Mandrescu, E. (2002). *On Well-Covered Trees with Unimodal Independence Polynomials*, *Congressus Numerantium*, **Vol. 159**, 193 – 202.

## 2003

51. Korenblit, M. and Levit, V. E. (2003). *On Algebraic Expressions of Series-Parallel and Fibonacci Graphs*, Proceedings of the 4<sup>th</sup> International Conference on Discrete Mathematics and Theoretical Computer Science (DMTCS'03), *Lecture Notes in Computer Science*, Springer, **Vol. 2731**, 215 – 224.
52. Levit, V. E. and Mandrescu, E. (2003). *On Unimodality of Independence Polynomials of some Well-Covered Trees*, Proceedings of the 4<sup>th</sup> International Conference on Discrete Mathematics and Theoretical Computer Science (DMTCS'03), *Lecture Notes in Computer Science*, Springer, **Vol. 2731**, 237 – 256.
53. Levit, V. E. and Mandrescu, E. (2003). *On  $\alpha^+$ -Stable Koenig-Egervary Graphs*, *Discrete Mathematics*, **Vol. 263/1-3**, 179 – 190.
54. Korenblit, M. and Levit, V. E. (2003). *On the Reliability Polynomial of Fibonacci and some other Graphs*, *WSEAS Transactions on Mathematics*, **Vol. 2**, Issue 1, 43 – 47.
55. Korenblit, M. and Levit, V. E. (2003). *The Uniform Generalized Decomposition Method for Generating Algebraic Expressions of Fibonacci Graphs*, *WSEAS Transactions on Mathematics*, **Vol. 2**, Issue 1, 92 – 97.
56. Kempner, Y. and Levit, V. E. (2003). *Correspondence between Two Antimatroid Algorithmic Characterizations*, *Electronic Journal of Combinatorics*, **Vol. 10**, Paper R44, 9 pp.
57. Levit, V. E. and Mandrescu, E. (2003). *Local Maximum Stable Sets in Bipartite Graphs with Uniquely Restricted Maximum Matchings*, *Discrete Applied Mathematics*, **Vol. 132**, 163 – 174.
58. Korenblit, M. and Levit, V. E. (2003). *On Algebraic Expressions of Generalized Fibonacci Graphs*, *WSEAS Transactions on Mathematics*, **Vol. 2**, Issue 4, 324 – 329.



59. Levit, V. E. and Mandrescu, E. (2003). *A Family of Well-Covered Graphs with Unimodal Independence Polynomials*, *Congressus Numerantium*, **Vol. 165**, 195 – 207.
60. Korenblit, M. and Levit, V. E. (2003). *On Sizes of Mincuts in a Fibonacci Graph*, *International Journal of Computer Research*, **Vol. 12**, No. 3, 151 – 158.

## 2004

61. Kempner, Y. and Levit, V. E. (2004). *Quasi-Concave Functions on Poly-Antimatroids*, *Proceedings of the International Conference Mathematical Modeling of Social and Economical Dynamics (MMSED-2004)*, Moscow, Russia, 141 – 144.
62. Levin, I., Levit, V. E. and Salzer H. T. (2004). *Atomic Specifications and Controlware*, *WSEAS Transactions on Computers*, **Vol. 3**, Issue 3, 774 – 782.
63. Levit, V. E. and Mandrescu, E. (2004). *Graph Products with Log-Concave Independence Polynomials*, *WSEAS Transactions on Mathematics*, **Vol. 3**, Issue 3, 487– 492.
64. Hacoheh-Kerner, Y., Intrator, Y and Levit, V. E. (2004). *An  $O(n^2)$  Heuristic Algorithm for the Maximum Matching Problem*, *WSEAS Transactions on Mathematics*, **Vol. 3**, Issue 3, 521– 526.
65. Levit, V. E. and Mandrescu, E. (2004). *Very Well-Covered Graphs with Log-Concave Independence Polynomials*, *Carpathian Journal of Mathematics*, **Vol. 20**, No. 1, 73 – 80.

## 2005

66. Levit, V. E. and Mandrescu, E. (2005). *Unicycle Graphs and Uniquely Restricted Maximum Matchings*, *7<sup>th</sup> International Colloquium on Graph Theory - IGGT'05*, France, *Electronic Notes in Discrete Mathematics*, **Vol. 22**, 261 – 265.
67. Levit, V. E. and Mandrescu, E. (2005). *The Independence Polynomial of a Graph - a Survey*, *Proceedings of the International Conference on Algebraic Informatics*, Greece, 233 – 254.
68. Levit, V. E. and Mandrescu, E. (2005). *A Square-Stable and Well-Covered Graphs*, *Acta Universitatis Apulensis. Mathematics. Informatics*, **Vol. 10**, 297 – 307.

## 2006

69. Levit, V. E. and Mandrescu, E. (2006). *Some Operations Preserving Log-Concavity of Nonnegative Functions*, *Mathematical Inequalities & Applications*, **Vol. 9**, No. 1, 63 – 73.
70. Levit, V. E. and Mandrescu, E. (2006). *Independence Polynomials of Well-Covered Graphs: Generic Counterexamples for the Unimodality Conjecture*, *European Journal of Combinatorics*, **Vol. 27**, Issue 6, 931 – 939.
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72. Levit, V. E. and Mandrescu, E. (2006). *On  $\alpha$ -Critical Edges in König-Egerváry Graphs*, *Discrete Mathematics* **Vol. 306**, Issue 15, 1684 – 1693.
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