CURRICULUM VITAE

Dr. Zeev (Vladimir) Volkovich, Professor

29 October 2016

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6/a/1, Yach-Yam St., Karmiel, P.O. Box 9374, Israel, 21823
Date of Birth: October, 9, 1953
Place of Birth: Uzbekistan (former USSR), Tashkent
Immigrated to Israel: August, 13, 1990
Marital status: Married +2

EDUCATION

Ph.D. 1982, Probability theory, Institute of Mathematics, Ukrainian Academy of Sciences, Kiev, USSR, Dissertation: "A Description of the Generalized Convolutions and Characterization of Probability Distributions"

M.Sc. 1975, Mathematics, (summa cum laude), Department of Mathematics, Tashkent State University, Tashkent, USSR, Thesis: "Additive Functions of the Gaussian Field"

ACADEMIC EXPERIENCE

2015- Present Head, Department of Software Engineering, ORT Braude College, Israel.

2013- Present Full Professor, ORT Braude College, Israel

2010 – Present Head of M.Sc. Program, Department of Software Engineering, ORT Braude College, Israel.

2013 Adjunct Senior Teaching Fellow, Technion, Haifa, Department of Industrial Engineering Israel

2011 – Present Head of the Data Mining Institute, ORT Braude College, Israel.

2007 – 2012 Head, Department of Software Engineering, ORT Braude College, Israel.

2005 – 2013 Associate Professor, ORT Braude College, Israel.

2001 – 2005 Senior Lecturer, ORT Braude College, Israel.

1991 – 2001	Lecturer, ORT Braude College, Israel.
1997 – 2001	Adjunct Senior Lecturer, Department of Mathematics, Technion, Israel.
1996 – 2007	Adjunct Senior Lecturer, Western Galilee College, Israel.
1988 – 1990	Leading Research Fellow, The Central Asian Regional Research Institute, Tashkent, USSR.
1984 – 1988	Senior Research Fellow, The Central Asian Regional Research Institute, Tashkent, USSR.
1981 – 1984	Senior Research Fellow, Institute of Geology and Exploring of Oil and Gas Deposits, Tashkent, USSR.
1979 – 1981	Adjunct Lecturer, Tashkent Polytechnic University, Tashkent, USSR.
1977 - 1980	Ph.D. Student, Tashkent Polytechnic University, Tashkent, USSR; Leningrad Avionic Hardware University, Leningrad USSR.
1978 – 1979	Senior Research Fellow, Research Institute of Hydrogeology and Engineering Geology, Tashkent, USSR.
1976 – 1977	Research Fellow, Research Institute of Hydrogeology and Engineering Geology, Tashkent, USSR.
1975 – 1976	Research Fellow, Computer Center of the State Planning Committee, Tashkent, USSR.

FURTHER AFFILIATIONS:

2014- Present	Affiliate Full Professor, Institute of Applied, Mathematics (IAM), Middle East Technical University, Ankara, Turkey.
2015- Present	Affiliate Adjunct Full Professor, Department of Mathematics and Statistics, University of Maryland (UMBC), Baltimore, USA.
2004-2006	Affiliate Adjunct Associate Professor, Department of Mathematics and Statistics, University of Maryland (UMBC), Baltimore, USA.

PROFESSIONAL EXPERIENCE

2000 – 2001	Algorithms Expert (part time), Recypher Ltd., Haifa, Israel; Responsibilities: Development and implementation of cryptographic algorithms for data security systems.
1996 – 1999	Director (since 1998) of R&D, Senior Consultant (1996-1998) (part time), Controlled Micro Devices Ltd., Haifa, Israel; Responsibilities: Development and software implementation of numerical modeling algorithms
1995	Senior Consultant (part time), Tamuz Ltd., Haifa, Israel. Responsibilities: Development and software implementation of algorithms for mathematical models of the stock market processes.
1989 – 1990	Supervisor of Mathematical Modeling Department (part time), Technical Center "Grant", Tashkent, USSR; Responsibilities: Software implementation of algorithms for pattern recognition systems.

TEACHING EXPERIENCE

A. ORT Braude College:

Undergraduate Courses:

Computer Science Courses in the Software Engineering Department:
Cryptology 1 (new course)
Cryptology 2 (new course)
Data Compression (new course)
Algorithms Theory (new course)
Discrete Mathematics 1 (new course)
Discrete Mathematics 2 (new course)
Numerical Analysis (new course)
Computer Communication Security (new course)
Data Mining (new course)
Data Mining Lab (new course)
Stochastically Models in Bioinformatics (new course)
Introduction to the Information Theory (new course)

Graduate Courses:

Learning systems (new course at the ORT Braude Software Engineering M.Sc. program)

Other Courses:

Statistics 1 (Software Engineering Department) (new course)
Statistics 2 (Software Engineering Department) (new course)
Statistics 1 (Industrial Engineering and Management Department) (new course)

Statistics 2 (Industrial Engineering and Management Department) (new course)
Statistics 1 (Electrical Engineering Department) (new course)
Statistics 2 (Electrical Engineering Department) (new course)
Numerical Analysis (Electrical Engineering Department) (new course)
Algebra 2 (Computers Engineering Department) (new course)

Development of laboratories and research groups:

- Data Mining Institute, ORT Braude College, Israel.
- Data Security and Data Mining Laboratory of the Software Engineering Department, ORT Braude College, Israel.

B. Other Universities or Colleges

Undergraduate Courses:

- Data Mining Methods (2013) (Technion, Israel)
- Introduction to Probability Theory (1997, 2001) (Technion, Israel)

Graduate Courses:

- Mathematical Statistics and Probability Theory (1978, 1981) (Tashkent Polytechnic University, USSR)
- Differential and Integral Calculus (1978) (Tashkent Polytechnic University, USSR)

ACADEMIC AND PROFESSIONAL AWARDS AND GRANTS

2013 Binational Israel – Czech grand in software testing

2010 PATHOSYS- New Algorithms for Host Pathogen Systems Biology, FP7-HEALTH-2010- single-stage grant.

2006 Excellence Prize, ORT Braude College.

2005 Excellence Prize, ORT Braude College.

2004 Excellence Prize, ORT Braude College.

2003 Excellence Prize, ORT Braude College.

1975 Tashkent State University, Summa Cum Laude.

PROFESSIONAL AND PUBLIC ACTIVITIES

ORT Braude College

- 2012-Present, Chair, Teaching Council, Department of Software Engineering.

- 2011-Present, Academic Projects Coordinator at M.Sc. program in the Department of Software Engineering.
- 2010- Present, Member of the development team of the new M.Sc. program in the Department of Software Engineering.
- 2010 – Present, Member of Editorial Board of the International Journal of Lean Thinking.
- 2007 –Present, International collaborator of Eureka Ibero America, Iberian-American Network of Knowledge Discovering, approved by Iberian American Program of Science and Technology for Development (CYTED).
- 2002- Present, Member of the ORT BRAUDE College Academic Council.
- 2002, Chair, Teaching Council, Department of Software Engineering.
- 1993-1997, Member, the College Teaching Council.
- 2001-2004, Academic coordinator of Seminars in Computer Science, Department of Software Engineering.
- 2002-2003, Academic Coordinator in Design of the Data Security and Data Mining Laboratory.
- 2002-2005, Member of the development team of the new B.Sc. Program in the Department of Software Engineering
- 2001-2005, Member of the "Teaching by Internet" Project,
  Developed Courses:
  - Discrete Mathematics 1
  - Cryptography 1
- 1994-1999, Statistical and Software Consultant for the Students and Teachers Survey Committee.
- 1996, Academic Coordinator of the Course "Scientific Programming", Department of Continuing Education.

Conferences Organization

- Stream Organizer at the 27th EURO Conference on Operational Research, Glasgow, July 2015.
- Member, the Scientific Committee at the 2nd International Workshop on Statistical Methods in Reliability Assessment of Complex Industrial Multi-state Systems, RAMSS 2014, University of Fribourg, Switzerland, 8th – 12th September 2014.
- Stream Organizer at the 26th EURO Conference on Operational Research, Rome, July 2013.
- Member, the Scientific Committee at IADIS European Conference**,**
  Data Mining 2013, Prague, Czech Republic**,** July 2013.

- Stream Organizer at the 25th EURO Conference on Operational Research, Vilnius, July, 2012.
- Member, the Scientific Committee at ADIS European Conference Data Mining 2012, Lisbon, Portugal, July 2012.
- Member, the Scientific Committee at Tenth Workshop on Text Mining, Anaheim, USA, April 2012.
- Invited session organizer at the International Federation of Operational Research Societies (IFOR S2011) conference, Melbourne, July 2011.
- Member, the Scientific Committee at Ninth Workshop on Text Mining, Mesa, USA, April 2011.
- Invited stream organizer: 24th European Conference on Operational Research, Lisbon, Portugal, July 2010.
- Member, the Scientific Committee at International Conference on Modeling, Optimization and Dynamics, University of Porto, July 2010.
- Invited organizer of the session "Optimization Approaches in Classification Problems", at Global Conference on Power and Optimization (PCO2010), Golden Coast**,** Queensland**,** Australia, February, 2010.
- Invited organizer of the session "Stochastic Modeling and Simulation II" at the 23rd European Conference on Operational Research, Bonn, July, 2009.
- Invited organizer of the stream" Stochastic Modeling for Classification Problems" at the XIII International Conference Applied Stochastic Models and Data Analysis **(**ASMDA 2009), Vilnius, 2009.
- Member, the International Program Committee at Second Global Conference on Power and Optimization (PCO2009), Bali, Indonesia, 2009.
- Member, the International Program Committee Text Mining workshop at SIAM International Conference on Data Mining, John Ascuaga's Nugget – Sparks, Nevada, 2009.
- Member, the International Program Committee at XXVIII International Seminar on Stability Problems for Stochastic Models, Zakopane, Poland, 2009.
- Member, Program Committee at Continuous Optimization and Knowledge-Based Technologies, Lithuania, 2008.
- Co-Chair of the International Program Committee of XXVI International Seminar Stability Problems for Stochastic Models, Israel, October 22-26, 2007.
- Co-Chair of the Local Organizing Committee of XXVI International Seminar Stability Problems for Stochastic Models, Israel, October 22-26, 2007.
- Chair Program Committee, 2nd ORT Braude College Interdisciplinary Research Conference, Karmiel, Israel, July 11-12, 2006.
- Member, Advisory Committee of the 4th Atlantic Web Intelligence Conference, Ben-Gurion University of the Negev, Beer-Sheva, Israel, June 5-7, 2006.

- Member Program Committee of 4th Atlantic Web Intelligence Conference, Ben-Gurion University of the Negev, Beer-Sheva, Israel, June 5-7, 2006.
- Member, Program Committee, 2nd Workshop on Algorithmic Techniques for Data Mining 2006, Ben-Gurion University of the Negev, Beer-Sheva, Israel, June 5-7, 2006.
- Member, Program Committee, Workshop on Clustering Large High Dimensional Datasets, 1st International Conference on Scalable Information Systems, Hong Kong, May 20-June 1, 2006.
- Member, Program Committee, Joint Israeli-Russian Workshop on Stochastic Models: Theory and Application, ORT Braude College, Karmiel, April 5, 2006.
- Member, Program Committee, Algorithmic Techniques for Data Mining Workshop, ORT Braude College, Karmiel, May, 2005.
- Member, Program Committee, 5th SIAM International Conference on Data Mining (SDM 2005), Workshop on Clustering High Dimensional Data and Its Applications, Newport Beach, CA, USA, April, 2005.
- Member, Program Committee, 4th SIAM International Conference on Data Mining (SDM 2004), Workshop on Clustering High Dimensional Data and its Applications, Lake Buena Vista, FL, USA April, 2004.
- Member, Program Committee, IEEE Data Mining Workshop on Clustering Large Data Sets, Melbourne, FL, USA, November, 2003.
- Member, Program Committee, SIAM International Conference on Data Mining, Workshop on Clustering High Dimensional Data and Its Applications, San Francisco, CA, USA May 2003.

Chairmanship at Conferences

- Section Chair in 12th International Conference, MLDM 2016, New York, USA, July 16-21, 2016.
- Section Chair at the 28th EURO Conference on Operational Research, Glasgow, July 2015.
- Section Chair at KDIR 2012 in Barcelona, October, 2012
- Section Chair at the 25th EURO Conference on Operational Research, Vilnius, July, 2012.
- Section Chair the session "Stochastic Modeling and Simulation II" at the International Federation of Operational Research Societies (IFOR S2011) Conference, Melbourne, 2011.
- Section Chair the session "Stochastic Modeling and Simulation II" at the 24th European Conference on Operational Research, Lisbon, 2010.

- Section Chair the session "Cluster / Classification" Stochastic Modeling Techniques and Data Analysis International Conference (SMTDA 2010), Chania Crete Greece, 8-11, June 2010.
- Section Chair the session "Stochastic Modeling and Simulation II" at the 23rd European Conference on Operational Research, Bonn, 2009
- Section Chair the session "Stochastic Modeling for Classification Problems", The XIII International Conference Applied Stochastic Models and Data Analysis **(**ASMDA 2009), Vilnius, 2009.
- Section Chair, 20th Mini Conference "Continuous Optimization and Knowledge-Based Technologies", EurOPT, Lithuania, 2008.
- Section Chair, Seminar on Stability Problems for Stochastic Models, ORT Braude College, Israel, October 22-26, 2007.
- Section Chair, 1st European Conference on Data Mining (ECDM'07), Lisbon, Portugal, July 2007.
- Invited Section Chair, 21st European Conference on Operational Research, EURO XXI in Iceland, July, 2006.
- Section Chair, Seminar on Stability Problems for Stochastic Models, Jurmala, Latvia, September 2004.

Invited talks

- Invited Speaker, Sankt-Petersburg State University, June, 2015.
- Invited Speaker, Sankt-Petersburg State University, June, 2014.
- Invited Speaker, Wuhan Union Hospital, Huazhong University of Science and Technology, Wuhan, China, November, 2013.
- Invited Speaker, Sankt-Petersburg State University, December 2011.
- Invited Speaker, Warsaw Polytechnic University, February 2011.
- Invited Speaker, Institute of Mathematics, University of Wrocław, July 2010.
- Invited Speaker XXVIII International Seminar on Stability Problems for Stochastic Models, Zakopane, Poland, 2009.
- Invited Speaker, the Israeli Statistical Association, Tel-Aviv, November 2008.
- Invited Speaker, University of Zielona Gora, Zielona Gora, Poland, Faculty of Mathematics Computer Science and Econometrics, July 2008.
- Invited Speaker, PASCAL Workshop on Stability and Resampling Methods for Clustering, Max Planck Institute for Biological Cybernetics, Tubingen, Germany, July 2007.
- Invited Speaker, Departments of Scientific Computing and Financial Mathematics, Institute of Applied Mathematics, Middle East Technical University, Ankara, Turkey, December 2006.

- Invited Speaker: International Conference on Advances in Statistical Inferential Methods Theory and Applications, Almaty, Kazakhstan, June 2003.
- Invited Speaker. International conference on Foundations of Statistical Inference: Applications in Medicine, Social Sciences and Industry, as well as the Interface with Computer Science, Jerusalem, Israel, 2000.

Referee of papers for publication in the following journals:

- Central European Journal of Operation Research.
- Communications in Statistic.
- Computers and Mathematics with Applications.
- Discrete Applied Mathematics.
- European Journal of Operational Research.
- Journal of Pattern Recognition Research.
- Journal of Statistical Planning and Inference and SP letters (JSPI).
- IEEE Transactions on Systems, Man and Cybernetics.
- Lithuanian Mathematical Journal.
- Machine learning
- Mathematical Problems in Engineering.
- Meteorology and Atmospheric Physics.
- Optimization.
- Optimization Letters.
- Pattern Recognition.
- Pattern Recognition Letters.
- Statistics and Probability Letters.
- Information Systems
- Knowledge based systems
- Journal of Statistical Computation and Simulation
- PLOS ONE
- Life

- **LIST OF PUBLICATIONS**

A. Refereed Papers:

1. D. Shalymov, O. Granichin, L. Klebanov and Zeev Volkovich, Literary writing style recognition via a minimal spanning tree-based approach, 61, 1, 145–153, November 2016.

2. Z. Volkovich , O Granichin, O. Redkin and O. Bernikova, Modeling and visualization of media in Arabic, Journal of Informetrics, 10, 2, 439–453, May 2016.

3. E. V. Ravve, Z. Volkovich and G.-W. Weber, Automatic Definition of Optimal Default Parameters of Algorithms, Dynamics of Continuous, Discrete and Impulsive Systems, 2016 (to appear)

4. V. Kizner, E. V. Ravve, Z. Volkovich, and G.-W. Weber, An Estimate of the Objective Function Optimum for the Network Steiner Problem, Annals of Operational Research, March 2016, 238(1), 315-328, ,2016

5. E.V. Ravve, Z. Volkovich and G.-W. Weber, Effective optimization with weighted automata on decomposable trees, Optimization: A Journal of Mathematical Programming and Operations Research, 63, 1, 109-127, 2014.

6. El. V. Ravve, Z. Volkovich, G.-W. Weber. Automatic Definition of Optimal Default Parameters of Models, Optimization, A Journal of Mathematical Programming and Operations Research, 2014. (to appear)

7. N. Levtov, S. Amberkar, Z. Frenkel, L. Kaderali, Z. Volkovich, Detecting Non-Uniform Clusters in Large-Scale Interaction Graphs. J. Comput Biol 21(2), 173-83, 2014.

8. Z. Frenkel, Z. Barzily, Z. Volkovich and E. N. Trifonov, Hidden ancient repeats in DNA: mapping and quantification, GENE, 528, 282-287, 2013.

9. T. Couronné, V. Kirzner, K. Korenblat, Z. Volkovich, Some Features of the Users' Activities in the Mobile Telephone Network. Journal of Pattern Recognition Research, 8, 1, 59-65, 2013.

10. D. Toledano-Kitai, R. Avros, Z. Volkovich, G.- W. Weber and O. Yahalom, A binomial noised model for cluster validation, Journal of Intelligent and Fuzzy Systems, , 7, Special, Issue: Recent Advances in Intelligent & Fuzzy Systems, 417-427, 2013.

11. S. Kogan S., Z. Frenkel, O. Kupervasser and Z. Volkovich, Hierarchy of Protein Loop-Lock Structure (HoPLLS): a new server for decomposition of protein

structure into a set of closed loops. Journal of Computational Molecular Bioscience (CMB) 3:1-8, 2013.

12. Z. Frenkel, S. Amberkar, L. Kaderali. and Z. Volkovich, Repeated bisections approach for local clustering of PPINs, Journal of Modern Mathematics Frontier, (JMMF), Mar; 2(1), 19-24, 2013.

13. Z. Volkovich, D. Toledano-Kitai and G.-W. Weber, Self-Learning k-Means Clustering: A Global Optimization Approach, Journal of Global Optimization (JOGO), 56 (2), 219-232, 2013.

14. Z. Volkovich, G.-W. Weber, R. Avros, and O. Yahalom, On an adjacency cluster merit approach, Int. J. Operational Research, 13(3), 239–255, 2012.

15. Z. Volkovich, D. Toledano-Kitai, Z. Barzily, G.-W. Weber and R. Avros, A Minimal Spanning Trees Approach to Cluster Stability Problem, Central European Journal of Operation Research, 20(1), 119-139, 2012.

16. E. Trifonov, Z. Volkovich, Z. Frenkel, Multiple levels of meaning in DNA sequences, and one more. Annals of the New York Academy of Sciences. Sep; 1267(1), 35-8, 2012.

17. V. Kirzhner and Z. Volkovich, Model of Overlapping Messages with Degenerate Coding, Applied Mathematics, 3(2), 188-197, 2012.

18. K. Korenblat and Z. Volkovich, Feature Selection for Microarray Data Using Probability Distances, JP Journal of Biostatistics, 7(1), 15 – 34, 2012.

19. K. Korenblat, Z. Volkovich, A. Bolshoy, A., Robust classifying of prokaryotic genomes. Computational Biology and Chemistry, 40, 20-29, 2012.

20. Z. Volkovich, Z. Barzily, G.-W. Weber, D. Toledano-Kitai and R. Avros, Resampling Approach for Cluster Model Selection, Machine Learning, 85(1-2), 209–248, 2011.

21. Z. Frenkel, E. Trifonov, Z. Volkovich and T. Bettecken, Nucleosome Positioning Patterns Derived from Human Apoptotic Nucleosome, Journal of Bimolecular Structure &Dynamics, ISSN 0739-1102, 29(3), 577-583, 2011.

22. E. Kropat, Z.Volkovich and G.-W. Weber, Stochastic Modeling and Simulation" (Stream, XXIV of European Conference on Operational Research), International IFNA-ANS scientific Journal "Problems of nonlinear analysis in engineering systems", 1(35), 17, 137-151, 2011.

23. Z. Volkovich, M. Golani and R. Avros, A comparative approach to cluster validation, Journal of Pattern Recognition Research, 6(2), 230-243, 2011.

24. Z. Volkovich, Z. Barzily, R. Avros and D. Toledano-Kitai, On Application of a Probabilistic K-Nearest Neighbors Model for Cluster Validation Problem, Communications in Statistic, 40, 2997–3010, 2011.

25. Z. Volkovich, M. Golani and R. Avros, On Initialization of the Expectation-Maximization Clustering Algorithm, The Global Journal of Technology and Optimization, Transaction on Evolutionary algorithm and Clustering, ISSN: 2229-8711, Online Publication, 2(2), 117-120, June 2011.

26. O. N. Granichin, D. S. Shalymov, R. Avros and Z. Volkovich, A randomized algorithm for estimating the number of clusters, Automation and Remote Control, 72(4), 754-765, 2011.

27. D. Toledano-Kitai, R. Avros and Z. Volkovich, A Fractal Dimension Standpoint to the Cluster Validation Problem, International Journal of Pure and Applied Mathematics, 20 (2), 187-202, 2011.

28. A. Kaplunovsky, D. Zabrodsky, Z. Volkovich, A. Ivashchenko and A. Bolshoy, Statistics of Exon Lengths in Fungi, The Open Bioinformatics Journal, 4, 31-40, 2010.

29. Z. Volkovich, Z. Barzily, D. Toledano-Kitai and R. Avros, The Hotelling's metric as cluster stability measure, Computer Modeling & New Technologies, 14(4), 65-72, 2010.

30. Z. Volkovich, V. Kirzhner, Z. Barzily, S. Hosid and K. Korenblat, A Linguistic Approach to Classification of Bacterial Genomes, Pattern Recognition, 43(3), 1083-1093, 2010.

31. Z. Volkovich, D. Toledano-Kitai, and R. Avros, On analytical properties of generalized convolutions, Banach Center Publications, Institute of Mathematics, Polish Academy of Sciences Warszawa, (invited paper), 90, 243-274, 2010.

32. P. Soreanu and Z. Volkovich, Energy-Efficient Sensing Models for Wireless Sensor Networks, the International Journal on Advances in Networks and Services, 2(4), 261-272, 2009.

33. P. Soreanu, Z. Volkovich, Z. Barzily and M. Golani, Mitigating jamming attacks in wireless sensor networks: an energy-efficient method in a mobile jammer environment, Journal of Pure and Applied Mathematics, Journal of Pure and Applied Mathematics, 56(4), 533-550, 2009.

34. E. Pancheva, I. Mitov and Z. Volkovich, Relationship between Extremer and Sum Processes Generated By the Same Point Process, Serdica Math. Journal, 2, 2009.

35. Z. Barzily, Z. Volkovich, B. Akteke-Ozturk and G.-W. Weber, On a minimal spanning tree approach in the cluster validation problem, Informatica, 20(2), 187-202, 2009.

36. L. Kozobay-Avraham, S. Hosid, Z. Volkovich and A. Bolshoy, Prokaryote Clustering Based on DNA curvature distributions, The Journal of Combinatorial Algorithms, Informatics and Computational Sciences, 157(10), 2370-2377, 2009.

37. A. Bolshoy, Z. Volkovich, Whole-genome prokaryotic clustering based on gene lengths, Discrete Applied Mathematics, 157(10), 2370-2377, 2009.

38. Z. Volkovich, Z. Barzily, and L. Morozensky, A statistical model of cluster stability, Pattern Recognition, 41(7), 2174-2188, 2008.

39. A. L. Rukhin and Z. Volkovich, Testing Randomness via a periodic Words, the Journal of Statistical Computation and Simulation, 78(12), 1–12, 2008.

40. V. Kirzhner, A. Paz, Z. Volkovich, E. Nevo and A. Korol, Different clustering of genomes across life using the A-T-C-G and degenerate R-Y alphabets: Early and late signaling on genome evolution?, Journal of Molecular Evolution, 64(4), 448-456, 2007.

41. V. Volkovich, J. Kogan and C. Nicholas, Building initial partitions through sampling techniques, European Journal of Operational Research, 183, 3(16), 1097-1105, 2007.

42. E. Pancheva, Z. Volkovich and L. Morozensky, Upper and lower bounds for ruin probability, Pliska Studia Mathematica Bulgarica, 18, 315-326, 2007.

43. A. Grusho, E. Timonina, Z. Volkovich and Z. Barzily, On a probabilistic model of intrusion detection, Journal of Pure and Applied Mathematics, 34(1), 39-50, 2007.

44. E. Pancheva, I. Mitov and Z. Volkovich, Sum and extremal processes over explosion area, Reports of the Bulgarian Academy of Science, 59(12), 1219-1226, 2006.

45. Z. Volkovich, Z. Barzily and P. Soreanu, The Levy-Khinchine representations and functional algebras of test functions, Journal of Pure and Applied Mathematics, 25(1), 103-121, 2005.

46. Z. Volkovich, V. Kirzhner, A. Bolshoy, A. Korol and E. Nevo, The Method of N-grams in large-scale clustering of DNA texts pattern recognition, Pattern Recognition, 38(11), 1902-1912, 2005.

47. V. Kirzhner, A. Bolshoy, Z. Volkovich, A. Korol and E. Nevo, Large scale genome clustering across life based on a linguistic approach. BioSystem, 81(3), 208-222, 2005.

48. M. Elin, D. Shoikhet and V. Volkovich, Semi-groups of holomorphic mappings on the unit disk with a boundary fixed point, Journal of Pure and Applied Mathematics, 12(4), 427-453, 2004.

49. J. Kogan, C. Nicholas and V. Volkovich, Text mining with information-theoretical clustering, Computing in Science and Engineering, 5(6), 52-59, 2003.

50. Ya. I. Belopolskaya, L. B. Klebanov and V. E. Volkovich, Characterization of Elliptic Distributions, Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI) 294 (2002), Veroyatn. i Stat. 5, 19-28, 260; Translation in Journal of Mathematical Sciences, 1, 1682-1686, 2005.

51. L. Klebanov, T. Kozubowskii, S. Rachev and V. Volkovich, Characterization of distributions symmetric with respect to a group of transformations and testing of corresponding statistical hypothesis, Statistics and Probability Letters, 53, 241-247, 2001.

52. L. Klebanov, S. Mittnik, S. T. Rachev and V. Volkovich, A new representation for the characteristic function of strictly geo-stable vectors, Journal of Applied Probability, 37(4), 1137-1142, 2000.

53. V. Volkovich, On V-infinitely divisible distributions, Theory of Probabilities and Its Applications, 3, 98-111, 1995.

54. V. Volkovich, On symmetric stochastic convolutions, Journal of Theoretical Probability, 5(3), 417-430, 1992.

55. V. Volkovich, On centering of probabilities distributions, Izvestya of the Academy of Sciences of the Uzbek SSR, Physical-mathematical Series, 2, 3-9, 1990.

56. V. Belyavsky, V. Volkovich and I. Panich , On possibility of galvanic anomalies' analysis in lower semi space, Izvestya of the Academy of Sciences of the USSR, Earth Physics, 4, 47-54, 1985.

57. V. Volkovich, On condition of equal distributive of linear forms with unitary coefficients, Izvestya of the Academy of Sciences of the Uzbek SSR, Physical-mathematical Series, 5, 23-28, 1980.

58. V. Volkovich, On analytical description of K. Urbanik's algebras, Izvestya of the Academy of Sciences of the Uzbek SSR, physical- mathematical series, 24, 5, 12-17, 1979.

59. V. Volkovich, On inter-simple numbers with their own simple divisors, Izvestya of the Academy of Sciences of the Uzbek SSR, Physical-mathematical Series, 4, 3-7, 1976.

B. Books

1. O. Granichin , Z. Volkovich, D. Toledano-Kitai, Randomized Algorithms in Automatic Control and Data Mining (Intelligent Systems Reference Library), Springer, 2014.
2. A. Bolshoy, Z. Volkovich, V. Kirzhner and Z. Barzily, Genome Clustering: from linguistic Models to classification of genetic Texts, Springer, 2010.

B1. Edited Books

1. S. Shorgin and Z. Volkovich, Systems and Means of Informatics, Special Issue, Mathematical and Computer Modeling in Applied Problems, Institute Informatics Problems, RAS (Edited book), 2008.
2. M. Last, P.S. Scezepaniak, Z. Volkovich and A. Kandel, Advances in Web Intelligence and Data Mining, Springer-Verlag (Edited book) , 2006.

C. Chapters in Books

1. Z. Volkovich and V. Kirzhner, Classification of Bacterial Genomes Using Compositional Spectra Approach, Handbook of Pattern Recognition: Methods and Application (BK020A), (available online at http://iconceptpress.com/books/handbook-of-pattern-recognition--methods-and-application), 2012.
2. R. Avros, O. Granichin, D. Shalymov, Z. Volkovich, G.-W. Weber, Randomized Algorithm of Finding the True Number of Clusters (Invited Chapter 6) Data Mining: Found. & Intell. Paradigms, D.E. Holmes, L.C. Jain (Eds.), Berlin Heidelberg: Springer-Verlag, ISRL 23, 2012. Vol. 1, pp. 131–155.
3. Z. Volkovich, V. Kirzhner and Z. Barzily, On a linguistic classification of the bacterial genome, Systems and Means of Informatics, Special Issue, Mathematical and Computer Modeling in Applied Problems, Institute Informatics Problems, RAS, 6-15, 2008.
4. Z. Barzily, M. Golani and Z. Volkovich, On a simulation approach to cluster stability validation**,** Special Issue, Mathematical and Computer Modeling in Applied Problems, Institute Informatics Problems, RAS, 86-112, 2008.
5. Z. Volkovich, J. Kogan, Ch. Nicholas, Sampling Methods for Building Initial Partitions, Grouping Multidimensional Data, Springer-Verlag, 161-185, 2005.
6. V. Volkovich, Generalized Stochastic Convolution, In Probability and Mathematical Statistics Encyclopedia, Public House of the Great Russian Encyclopedia, Moscow, 1999.

D. Referred Proceedings

1. Z. Volkovich and R. Avros, Text Classification Using a Novel Time Series Based Methodology, 20th International Conference on Knowledge Based and Intelligent Information and Engineering Systems, KES 2016, 5-7 September 2016, York, United Kingdom, Procedia Computer Science 96, 53 – 62, 2016.

2. Z. Volkovich , A Time Series Model of the Writing Process, Machine Learning and Data Mining in Pattern Recognition, 12th International Conference, MLDM 2016, Proceedings, New York, NY, USA, July 16-21, 128-142, 2016.

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