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#### Web pages:

[http://apps.webofknowledge.com/Search.do?product=WOS&SID=R1IBDYc8QjsJ7cpTju3&search\\_mode=GeneralSearch&prID=1b873e56-7bf0-44aa-8e9b-c9c3fb77fe92](http://apps.webofknowledge.com/Search.do?product=WOS&SID=R1IBDYc8QjsJ7cpTju3&search_mode=GeneralSearch&prID=1b873e56-7bf0-44aa-8e9b-c9c3fb77fe92)

<http://link.springer.com/search?query=jakobczak+dariusz>

[http://scholar.google.pl/citations?hl=en&user=2S\\_rCDMAAAAJ](http://scholar.google.pl/citations?hl=en&user=2S_rCDMAAAAJ)

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<http://dblp.uni-trier.de/search?q=Dariusz+Jak%C3%B3bczak>

<https://pbn.nauka.gov.pl/sedno-webapp/persons/1210228>

<http://www.igi-global.com/affiliate/dariusz-jacek-jakbczak/289872>

#### Publications (selected 2011-2016)

30. **Jakóbczak D.:** *Curve Extrapolation and Data Analysis using the Method of Hurwitz-Radon Matrices*. Folia Oeconomica Stetinensia, vol.9(17)/2010, pp. 121-138, Szczecin University 2011.

31. **Jakóbczak D.:** *Object Recognition via Contour Points Reconstruction Using Hurwitz-Radon matrices*. IGI Global book „Knowledge-Based Intelligent System Advancements: Systemic and Cybernetic Approaches”, Józefczyk J., Orski D. (Eds.), Hershey PA, USA 2011, pp. 87-107.

32. **Jakóbczak D.:** *Curve Parameterization and Curvature via Method of Hurwitz-Radon Matrices*. Image Processing&Communications- An International Journal, vol.16, no.1-2, UT&LS Bydgoszcz 2011, pp. 49-56.

33. **Jakóbczak D.:** *Data Extrapolation and Decision Making via Method of Hurwitz-Radon Matrices*. Computational Collective Intelligence: Technologies and Applications (Proc. of ICCCI 2011, Part 1), Lecture

Notes in Computer Science, Vol. 6922, Jędrzejowicz P., Ngoc Thanh Nguyen, Kiem Hoang (Eds.), Springer-Verlag Berlin Heidelberg 2011, pp. 173-182.

34. **Jakóbczak D.**: *Shape Coefficients via Method of Hurwitz-Radon Matrices*. Zeszyty Naukowe Wydziału Elektroniki i Informatyki, nr 3, str. 59-71, Wydawnictwo Uczelniane Politechniki Koszalińskiej 2011.

35. **Jakóbczak D.**, Kosiński W.: *Shape Parametrization and Contour Curvature Using Method of Hurwitz-Radon Matrices*. Artificial Intelligence and Soft Computing (Proc. of ICAISC 2012, Part 1), Lecture Notes in Computer Science/LNAI, Vol. 7267, Rutkowski L., Korytkowski M., Scherer R., Tadeusiewicz R., Zadeh L.A., Zurada J.M. (Eds.), Springer-Verlag Berlin Heidelberg 2012, pp. 518-526.

36. **Jakóbczak D.**: *Application of Hurwitz-Radon matrices in curve interpolation and almost-smoothing*. [Central European Journal of Computer Science](#), December 2012, Volume 2, [Issue 4](#), pp 440-458

38. **Jakóbczak D.**: *The Zero of Function and Interpolation by the Method of Hurwitz-Radon Matrices*. Zeszyty Naukowe Wydziału Elektroniki i Informatyki, nr 4, str. 55-65, Wydawnictwo Uczelniane Politechniki Koszalińskiej 2012

39. **Jakóbczak D.**: *Probabilistic Nodes Combination – Modeling and Interpolation of 2D Curve*. International Journal of Organizational and Collective Intelligence (IJOCI), vol.3, no.3, pp.22-35, IGI Global, Hershey PA, USA 2012

40. **Jakóbczak D.**: *Probabilistic Modeling of Signature using the Method of Hurwitz-Radon Matrices*. Global Perspectives on Artificial Intelligence, vol. 1, issue 1, pp.1-7, January 2013.

41. **Jakóbczak D.**: *Application of Hurwitz-Radon Matrices in Shape Coefficients*. Asian Journal of Fuzzy and Applied Mathematics, vol.01-issue 01, pp.4-11, June 2013, published online at <http://www.ajouronline.com/index.php/AJFAM>.

42. **Jakóbczak D.**: *Numerical differentiation via the interpolation method of Hurwitz-Radon Matrices*. European Scientific Journal, vol.9, No.27, pp.50-62, September 2013.

43. **Jakóbczak D.**: *Active Object Modeling and Applications via the Method of Hurwitz-Radon Matrices*. Zeszyty Naukowe Wydziału Elektroniki i Informatyki, nr 5, str. 5-16, Wydawnictwo Uczelniane Politechniki Koszalińskiej 2013.

44. **Jakóbczak D.**: *Object Recognition via Contour Points Reconstruction Using Hurwitz-Radon matrices*. IGI Global books „[Image Processing: Concepts, Methodologies, Tools, and Applications](#)”, Hershey PA, USA 2013, pp. 998-1018.

45. **Jakóbczak D.**: *Curve Interpolation and Shape Modeling via Probabilistic Nodes Combination*. DOI: 10.1007/s40595-014-0016-7. Vietnam Journal of Computer Science, Springer 2014, Volume 1, Issue 3 (2014), pp. 141-153.

46. **Jakóbczak D.**: *Probabilistic Interpolation of the Curve via the Method of Hurwitz-Radon Matrices*. Advances in Computer Science: an International Journal (ACSIIJ), Vol. 3, Issue 3, No. 9, May 2014, pp. 9-15.

48. **Jakóbczak, D.J.** (2014) Numerical Quadratures Using the Interpolation Method of Hurwitz-Radon Matrices. *Advances in Linear Algebra & Matrix Theory*, **4** (2), 100-108. <http://dx.doi.org/10.4236/alamt.2014.42008>

49. **Jakóbczak D.**: *Offline Text-Independent Handwriting Identification and Shape Modeling via Probabilistic Nodes Combination*. [Artificial Intelligence and Soft Computing](#) (Proc. of ICAISC 2014, Part 2), [Lecture Notes in Computer Science](#) - LNAI 8468, Rutkowski, L., Korytkowski, M., Scherer, R., Tadeusiewicz, R., Zadeh, L.A., Zurada, J.M. (Eds.), Springer 2014, pp 119-130.

50. **Jakóbczak D.**: *Probabilistic Data Modeling - Interpolation and Extrapolation via the Method of Hurwitz-Radon Matrices*. Open Transactions on Information Processing, vol. 1, no.2, August 2014, pp. 1-19.

51. **Jakóbczak D.J.**: *Numerical Applications of the Method of Hurwitz-Radon Matrices*. Proceedings of 2<sup>nd</sup> [AIIC Annual International Interdisciplinary Conference](#), 08-12 July 2014, Ponta Delgada, Azores Islands (Portugal), pp. 436-446.

52. **Jakóbczak D.J.**: *Mathematical Modeling of 2D Processes via the Method of Hurwitz-Radon Matrices*. Proceedings of [International Conference On Advances In Computing, Electronics And Electrical Technology CEET 2014](#), 02-03.08.2014, Kuala Lumpur (Malaysia), pp.114-117.

53. **Jakóbczak D.**: *Probabilistic 2D Shape Retrieval and Applications via the Method of Hurwitz-Radon Matrices*. Journal of Control Science and Engineering 2 (2014), pp.1-6.

54. **Jakóbczak, D.J.** (2014) The Solution of Nonlinear Equations via the Method of Hurwitz-Radon Matrices. *Journal of Computer and Communications*, **2**, 9-16. <http://dx.doi.org/10.4236/jcc.2014.210002>

55. **Jakóbczak D.J.:** *2D Data Modeling by Probability Distribution*. Proceedings of [International Conference on Engineering and Applied Science ICEAS 2014, vol. II, 13.07.2014, Bangalore \(India\)](#), pp.1-5.
56. **Jakóbczak D.J.:** *Data Modeling using MHR Method*. Proceedings of [International Conference on Advances in Computer and Electronics Technology ACET 2014, Rakesh Kumar \(Ed.\), 26-27.08.2014, Hong Kong](#), pp.125-128.
57. **Jakóbczak D.J.:** *2D Data Modeling by Probability Distribution*. International Journal of Advanced Computer Engineering and Communication Technology (IJACECT), 2014 vol. 3, issue 1, pp. 13-17.
58. **Jakóbczak D.J.,** *2D Curve Modeling via the Method of Probabilistic Nodes Combination - Shape Representation, Object Modeling and Curve Interpolation-Extrapolation with the Applications*, LAP Lambert Academic Publishing (Saarbrücken, Niemcy) 2014, ISBN **978-3-659-58730-6**.
59. **Jakóbczak D.J.:** *Numerical Applications of the Method of Hurwitz-Radon Matrices*. European Scientific Journal, vol.3, special edition, pp.436-446, September 2014.
60. **Jakóbczak D.J.:** *2D Data Modeling by Probability Distribution*. International Journal on Advanced Electrical and Computer Engineering (IJAECE), 2014 vol. 1, issue 1, pp. 1-5.
61. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in Handwriting Recognition*. Zeszyty Naukowe Wydziału Elektroniki i Informatyki, nr 6, str. 35-50, Wydawnictwo Uczelniane Politechniki Koszalińskiej 2014.
62. **Jakóbczak D.J.:** *Reconstruction and Modeling of 2D Information*. Information - An International Interdisciplinary Journal (lista A, nr 4591, 15 pkt.) – in press, 2015.
63. **Jakóbczak D.J.:** *2D Point Reconstruction by MHR Method*. Proceedings of 2<sup>nd</sup> [International Conference on Advances in Computing, Electronics and Communication - ACEC 2014, 25-26.10.2014, Zurich](#), pp.181-184.
64. **Jakóbczak D.J.:** *Restoration of 2D Information by MHR Method*. Proceedings of 2<sup>nd</sup> International Conference on Advances in Computing, Communication and Information Technology - CCIT 2014, University of Birmingham (Birmingham, UK), November 16-17, 2014, pp.6-9.
65. **Jakóbczak D.J.:** *Application of the Method of Hurwitz-Radon Matrices in Data Reconstruction*. Proceedings of 2<sup>nd</sup> International Conference On Advances In Computing, Electronics And Electrical Technology CEET 2014, 20-21.12.2014, Kuala Lumpur (Malaysia), pp.15-18.
66. **Jakóbczak D.J.:** *Data Modeling using MHR Method*. International Journal of Advances in Computer Science & Its Applications – IJCSIA 2014, Volume 4: Issue 4, pp.6-9.
67. **Jakóbczak D.J.:** *Mathematical Modeling of 2D Processes via the Method of Hurwitz-Radon Matrices*. International Journal of Advances in Computer Science & Its Applications – IJCSIA 2014, Volume 4: Issue 4, pp.157-160.
68. **Jakóbczak D.J.:** *Implementation of Novel Method in Curve Interpolation*. Proceedings of [International Conference on Advances in Computing, Control and Networking - ACCN 2015, 21-22.02.2015, Bangkok \(Thailand\)](#), pp.7-10.
69. **Jakóbczak D.J.:** *Probabilistic 2D Point Interpolation and Extrapolation via Data Modeling*. Informatica **39** (2015), 53–61.
70. **Jakóbczak D.J.:** *Application of Curve Interpolation in Data Modeling and Restoration*. Proceedings of 3<sup>rd</sup> International Conference On Advances In Computing, Electronics And Electrical Technology CEET 2015, 11-12.04.2015, Kuala Lumpur (Malaysia), pp.42-45.
71. **Jakóbczak D.J.:** *2D Point Reconstruction by MHR Method*. International Journal of Advances in Computer Science & Its Applications – IJCSIA 2015, Vol. 5: Issue 1, pp.11-14.
72. **Jakóbczak D.J.:** *Restoration of 2D Information by MHR Method*. International Journal of Advances in Computer Science & Its Applications – IJCSIA 2015, Vol. 5: Issue 1, pp.51-54.

73. **Jakóbczak D.J.:** *Application of the Method of Hurwitz-Radon Matrices in Data Reconstruction.* International Journal of Advances in Software Engineering & Research Methodology– IJSERM 2015, Vol. 2: Issue 1, pp.40-43.
74. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in 2D Information Reconstruction, Object Recognition and Modeling.* Proceedings of 3<sup>rd</sup> International Conference on Advances in Computing, Communication and Information Technology - CCIT 2015, City University of Birmingham (Birmingham, UK), May 26-27, 2015, pp.93-98.
75. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in Simulation and Modeling.* New Developments in Computational Intelligence and Computer Science, Wang Y., Borne P., Rudas I. (Eds), Recent Advances in Computer Engineering Series 28. Proceedings of the International Conference on Applied Physics, Simulation and Computers - APSAC 2015, Vienna (Austria), March 15-17, 2015, pp.124-129.
76. **Jakóbczak D.J.:** *Novel Method of 2D Data Simulation and Modeling.* Recent Researches in Applied Mathematics, Simulation and Modelling, Rudas I. (Ed.), Mathematics and Computers in Science and Engineering Series 46. Proceedings of the 9<sup>th</sup> International Conference on Applied Mathematics, Simulation, Modelling - ASM15, Konya (Turkey), May 20-22, 2015, pp.121-126.
77. **Jakóbczak D.J.:** *Data Interpolation with Applications via Probabilistic Distribution and Nodes Combination.* Recent Advances in Mathematics, Rudas I. (Ed.), Mathematics and Computers in Science and Engineering Series 48. Proceedings of the 2015 International Conference on Pure Mathematics, Applied Mathematics and Computational Methods (PMAMCM 2015), Zakynthos Island (Greece), July 16-20, 2015, pp.27-32.
78. **Jakóbczak D.J.:** *Applications of Hurwitz-Radon Matrices in Data Engineering and Information Restoration.* Recent Advances on Computer Engineering Series 33, Xiaodong Zhuang (Ed.). Proceedings of the 14<sup>th</sup> International Conference on Applications of Computer Engineering (ACE '15), Seoul (Korea), September 5-7, 2015, pp.159-162.
79. **Jakóbczak D.J.:** *Data Reconstruction based on Probability Distribution.* Mathematical and Computational Methods in Applied Sciences, Rudas I. (Ed.), Mathematics and Computers in Science and Engineering Series 51. Proceedings of 3<sup>rd</sup> International Conference on Applied, Numerical and Computational Mathematics (ICANCM '15), Sliema (Malta), August 17-19, 2015, pp.179-184.
80. **Jakóbczak D.J.:** *Geometry of the Curve using Nodes Combination with Probability Distribution.* Mathematical and Computational Methods in Electrical Engineering, Mladenov V. (Ed.), Recent Advances in Electrical Engineering Series 53. Proceedings of 15<sup>th</sup> International Conference on Signal Processing, Computational Geometry and Artificial Vision (ISCGAV '15), Sliema (Malta), August 17-19, 2015, pp.147-152.
81. **Jakóbczak D.J.:** *Information Retrieval and Data Forecasting via Probabilistic Nodes Combination.* Intelligent Data Engineering and Automated Learning – IDEAL 2015, [Lecture Notes in Computer Science](#) LNCS 9375, Jackowski, K., Burduk, R., Walkowiak, K., Woźniak, M., Hujun Yin (Eds.), Springer 2015, pp 104-112.
82. **Jakóbczak D.J.:** *Application of Curve Interpolation in Data Modeling and Restoration.* International Journal of Advances in Computer Science & Its Applications – IJCSIA 2015, Vol. 5: Issue 2, pp.121-124.
83. **Jakóbczak D.J.:** *Implementation of Novel Method in Curve Interpolation.* International Journal of Advances in Computer Science & Its Applications – IJCSIA 2015, Vol. 5: Issue 2, pp.7-10.
84. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in 2D Information Reconstruction, Object Recognition and Modeling.* International Journal of Advances in Computer Science & Its Applications – IJCSIA 2015, Vol. 5: Issue 2, pp.173-178.
85. **Jakóbczak D.J.:** *Data Modeling and Interpolation based on Probability Distribution of the Nodes.* Advances in Computer Science, Xiaodong Zhuang (Ed.), Recent Advances in Computer Engineering Series 35. Proceedings of the 6<sup>th</sup> European Conference of Computer Science (ECCS '15), Rome (Italy), November 7-9, 2015, pp.245-250.
86. **Jakóbczak D.J.:** *Curve Restoration with Implementations based on Probability Distribution Functions.* Mathematical Models and Computational Methods, Rudas I. (Ed.), Mathematics and Computers in Science and Engineering Series 55. Proceedings of the 2015 International Conference on Applied Mathematics, Computational Science & Engineering (AMCSE 2015), Agios Nikolaos, Crete, Greece, October 17-19, 2015, pp.69-74.

87. **Jakóbczak D.J.:** *Applications of Probabilistic Distribution via Hurwitz-Radon Matrices*. Recent Advances on Applied Mathematics, Rudas I. (Ed.), Mathematics and Computers in Science and Engineering Series 56. Proceedings of the 20<sup>th</sup> International Conference on Applied Mathematics AMATH15, Budapest (Hungary), December 12-14, 2015, pp.149-152.
88. **Jakóbczak D.J.:** *Data Forecasting and Extrapolation via Probability Distribution and Nodes Combination*. Zeszyty Naukowe Wydziału Elektroniki i Informatyki, nr 8, str. 25-38, Wydawnictwo Uczelniane Politechniki Koszalińskiej 2015.
89. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in 2D Information Retrieval, Pattern Recognition and Biometric Modeling*. Advances in Intelligent Systems and Computing 389, Image Processing and Communications: Challenges 7, Choraś R.S. (Ed.), Springer 2016, pp. 125-134.
90. **Jakóbczak, D. J.** (2016). Analyzing Risk through Probabilistic Modeling in Operations Research (pp. 1-442). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-9458-3
91. **Jakóbczak D.J.:** *Data Extrapolation via Curve Modeling in Analyzing Risk: Value Anticipation for Decision Making*. In: Analyzing Risk through Probabilistic Modeling in Operations Research, **Jakóbczak D.J.** (Ed.), IGI Global (Hershey PA, USA), 2016, pp. 1-31.
92. **Jakóbczak D.J.:** *The Method of Probabilistic Nodes Combination in Decision Making and Risk Analysis: Data Extrapolation in Planning*. In: Analyzing Risk through Probabilistic Modeling in Operations Research, **Jakóbczak D.J.** (Ed.), IGI Global (Hershey PA, USA), 2016, pp. 32-60.
93. **Jakóbczak D.J.:** *Applications of Orthogonal Matrices in 2D Data Retrieval*. Advances in Mathematics and Computer Science & their Applications, Rudas I.J, Lee S.C. (Eds.), Mathematics and Computers in Science and Engineering Series 57. Proceedings of the 7<sup>th</sup> European Conference on Applied Mathematics and Informatics AMATH16, Venice (Italy), January 29-31, 2016, pp.264-267.
94. **Jakóbczak D.J.:** *Probabilistic Method of Data Computation, Interpolation and Modeling*. Advances in Mathematics and Computer Science & their Applications, Rudas I.J, Lee S.C. (Eds.), Mathematics and Computers in Science and Engineering Series 57. Proceedings of the 18th International Conference on Mathematical Methods, Computational Techniques and Intelligent Systems MAMECTIS '16, Venice (Italy), January 29-31, 2016, pp.252-257.
95. **Jakóbczak D.J.:** *A Novel Method of 2D Computation and Reconstruction*. Recent Advances in Mathematics and Computational Science, Rudas I.J (Ed.), Mathematics and Computers in Science and Engineering Series 58. Proceedings of the 4th International Conference on Mathematical, Computational and Statistical Sciences MCSS '16, Barcelona (Spain), February 13-15, 2016, pp.35-41.
96. **Jakóbczak D.J.:** *Information Analysis and 2D Point Extrapolation using Method of Hurwitz-Radon Matrices*. International Arab Journal of Information Technology –accepted, WoS-JCR.
97. **Jakóbczak D.J.:** *Modeling of High-dimensional Data for Applications of Image Segmentation in Image Retrieval and Recognition Tasks*. Hybrid Soft Computing for Image Segmentation, Siddhartha Bhattacharyya, Paramartha Dutta, Sourav De, Goran Klepac (Eds.), Springer International Publishing AG, Cham, Switzerland. It is expected to be published in 2017.