AURORA RODICA TUDUCE

LISTA DE PUBLICAȚII STRUCTURATĂ PE TEMATICI

1. Semnale genomice

1. Capitole în cărți

1. P. D. Cristea, G. A. Popescu, **Fractal Dimension of Human Chromosome 22,** Chapter 3. *Biology and Genetics*, in book *Interdisciplinary applications of fractal and chaos theory,* Editors: R. Dobrescu, C. Vasilescu, Romanian Academy Printing House, Bucharest, Editura Academiei Române, Bucharest, 2004, pp. 203-210, ISBN: 973-27-1070-5. (1)

2. Rodica Tuduce, M. Sultan, C. Rangu, P. D. Cristea, **Hutchinson Metric in Fractal DNA Analysis – A Neural Approach,** Chapter 3. *Biology and Genetics*, in book *Interdisciplinary applications of fractal and chaos theory*, Editors: R. Dobrescu, C. Vasilescu, Romanian Academy Printing House, Bucharest, 2004, pp. 196-202., ISBN: 973-27-1070-5. (2)

1.2. Articole publicate în reviste de specialitate

1. P. D. Cristea, Rodica Tuduce, **Comparative Analysis of Mitochondrial DNA by using Nucleotide Genomic Signals,** *Materials Science Forum,* Vol. 670 – Applied Electromagnetic Engineering, Eds: *Journal of Optoelectronics and Advanced Materials,* A.G. Mamalis, M. Enokizono and A. Kladas, pp. 507-516, 2010, http://www.scientific.net/MSF.670.507 (3)

2. P. D. Cristea, Rodica Tuduce, I. Năstac, J. Cornelis, R. Deklerck, M. Andrei, **Signal Representation and Processing of Nucleotide Sequences**, *Int. J. Functional Informatics and Personalised Medicine,* Vol. 1, No. 3, 2008, pp. 253-268, http://www.inderscience.com/browse/index.php?journalID=295&year=2008&vol=1&issue=3 (4)

1.3. Articole publicate în volume cu referenți ale unor conferințe internaționale

1. P. D. Cristea, Rodica Tuduce, **Nucleotide Genomic Signals DNA Analysis**, European IFMBE - MBEC Cooperation for Efective Healthcare , 5th European Conference of the International Federation for Medical and Biological Engineering, Budapest, Hungary, 14-18 September 2011, Abstracts pp. 142, Á. Jobbágy (Ed.): 5th European IFMBE Conference, IFMBE Proceedings 37, pp. 1374–1377, 2011. www.springerlink.com. (5)

2. P. D. Cristea, O. Arsene, Rodica Tuduce, D. V. Nicolau, **Protein Surface Functional Nanoscale Imaging,** *JapMed – Seventh Japanese Mediteranean and Central European Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials,* Budapest, Hungary, Danubius Hotel Gellert, 6-9 July 2011, pp. 44-45. (6)

3. P. D. Cristea, O. Arsene, Rodica Tuduce, D. V. Nicolau, **Protein Surface Analysis: Part I: Hydrophobicity Densities,** *ISSCS 2011- IEEE International Symposium on Signals, Circuits and Systems, Iași, Romănia,* June 30 – July 1, 2011, CFT11816 PRT, ISBN 978-1-4577-0201-3, pp. 415-418. (7)

4. P. D. Cristea, O. Arsene, Rodica Tuduce, D. V. Nicolau, **Protein Surface Analysis: Part II: Atom Neighorhood Clustering,** *ISSCS 2011- IEEE International Symposium on Signals, Circuits and Systems, Iași, Romănia,* June 30 – July 1, 2011, CFT11816 PRT, ISBN 978-1-4577-0201-3, pp. 419-422. (8)

5. P. D. Cristea, O. Arsene, Rodica Tuduce, D. V. Nicolau, **Protein Surface Functional Nanoscale Imaging**, *CSCS 2011- 18th International Conference on Control Ststems and Computer Science,* University "Politehnica" of Bucharest, Romania, May 24-28 01, 2011, pp. 107-111. (9)

6. P. D. Cristea, Rodica Tuduce, O. Arsene, D. V. Nicolau, **Surface Functional Imaging of Protein Hydrophobicities**, *VI "Academician Nicolae Cajal" Symposium*, Athenee Palace Hilton, Bucharest, March 30 – April 01, 2011, Absract pp. 7. (10)

7. P. D. Cristea, Rodica Tuduce, O. Arsene, D. V. Nicolau, **Functional Nanoscale Imaging of Protein Surfaces,** *BiOS SPIE WEST Photonics West – Conference Nanoscale Imaging, Sensing, and Actuation for Biomedical Applications Conference,* January 22-27, 2011, The Moscone Center, San Francisco, California. Program Conf. 7908 – S3-pp. 153. (11)

8. P. D. Cristea, Rodica Tuduce, O. Arsene, D. V. Nicolau, F. Fulga, **Multi-threading Protein Surface Functional Description**, NEUREL 2010 - *10th Symposium on Neural Network Applications in Electrical Engineering,* Belgrade, Serbia, September 23-25, 2010**.** (12)

9. P. D. Cristea, Rodica Tuduce, **Nucleotide Genomic Signals of DNA sequence motifs**, *Summer School Sozopol'2010 – Advanced Aspects of Theoretical Electrical Engineering*, Sozopol, Bulgaria, September 19-22, 2010. (13)

10. P.D. Cristea, Rodica Tuduce, **Applications of nucleotide Genomic Signals**, *DIASPORA Conference in Scientific Research and Higher Education in Romania, Exploration Workshop Molecular Medicine – Next Generation*, Bucharest, Romania, September 21-24, 2010. (14)

11. P.D. Cristea, Rodica Tuduce and O. Arsene, **Protein Surface Atom Neighborhood Functional Description**, *EMBC 2010* – Buenos Aires, Argentina, August 31 - September 4, 2010, Proceedings of the *32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, PubMed,* MEDLINE, IEEE Catalog number:CFP 10 EMB-DVD, ISBN 978-1-4244-4124-2, ISSN 1557-170X, ©2010 IEEE, pp. 5508-5511. http://embc2010.embs.org/. (15)

12. Rodica Tuduce, M. Ioannidis, P.D. Cristea, **Interdisciplinarity - Epistemology Dynamics and Promotion of Collaborative Activities,** *ICIE'10 – 5th International Conference on Interdisciplinarity in Education,* Tallinn, Estonia, June 17-19, 2010, – plenary lecture. (16)

13. P.D. Cristea, Rodica Tuduce and O. Arsene, **Protein Surface Atom Neighborhood Functional Description**, *MEDICON 2010 – XII Mediterranean Conference on Medical and Biological Engineering and Computing*, Porto-Caras, Chalkidiki, Greece, May 27-30, 2010, IFMBE Proceedings P.D. Bamidis, N. Pallikarakis (Eds.),Vol. 29,pp. 659-662, ISSN 1680-0737; ISBN 978-3-642-13038-0 (17)

14. P. D. Cristea, Rodica Tuduce, **Analysis and prediction of Mitochondrial DNA sequences**, *Symposium Fr. I. Rainer* - 2010, *Anthropological Dimensions of Biodiversity,* Romanian Academy - Anthropological Commission, 1940-*2010: 70 years of existence of the Institution Rainer*, Romanian Academy, April 23, 2010, – lucrare plenară. (18)

15. I. Nastac, Rodica Tuduce, **An Adaptive Intelligent Model for Nucleotide Sequence Forecasting,** *4th ISCCSP 2010 – International Symposium on Communications, Control & Signal Processing ,* Special Session, SS 3-4, March 3-5, 2010, Limassol, Cyprus, @2010 IEEE, IEEE Catalog Number: CFP10824-CDR, ISBN: 978-1-4244-6286-5, (19)

16. P. D. Cristea, Rodica Tuduce, O. Arsene, Alina Dinca, F. Fulga, D. V. Nicolau, **Modeling of Biological Nanostructured Surfaces,** *BiOS SPIE WEST Photonics West - Nanoscale Imaging, Sensing, and Actuation for Biomedical Applications Conference,* January 23-28, 2010, The Moscone Center, San Francisco, California, USA. Published in Proc. of SPIE Vol. **7574** – Nanoscale Imaging, Sensing, and Actuation for Biomedical Applications VII, edited by Alexander N. Cartwright, Dan V. Nicolau, 75740F, © 2010 SPIE · CCC code: 1605-7422/10/$18 · doi: 10.1117/12.839480 (20)

17. O. Arsene, P. D. Cristea, Rodica Tuduce, Alina Dincă, I.Năstac, D. Nicolau, F. Fulga, **Software for the local description of molecular surfaces by using advanced Java Technologies,** *ICTAMI 2009– International Conference on Theory and Applications of Mathematics and Informatics,* University of Alba Iulia, Romania, September 3-6, 2009, published in *Acta Universitatis Apulensis, Mathematics- Informatics, Special Issue, Proceedings of the ICTAMI 2009*, Aeternitas Publishing House, Eds. D. Breaz, Nicoleta Breaz, D. Wainberg, ISSN 1582-5329, Alba Iulia, 2009, pp. 721-734. (21)

18. D. Cristea, Rodica Tuduce, **Mitochondrial DNA sequence prediction**, *ICTAMI 2009– International Conference on Theory and Applications of Mathematics and Informatics,* University of Alba Iulia, Sept. 3-6, 2009, pp. 51, publ. in *Acta Universitatis Apulensis, Mathematics - Informatics, Special Issue, Proc. of CTAMI 2009*, Aeternitas Publ. House, Eds. D. Breaz, Nicoleta Breaz, D. Wainberg, ISSN 1582-5329, Alba Iulia, 2009, pp. 853-859, invited lecture. (22)

19. P. D. Cristea, Rodica Tuduce, **Comparative Analysis of Mitochondrial DNA by using Nucleotide Genomic Signals,** *JAPMED - 6th Japanese-Mediterranean Workshop on applied electromagnetic engineering for magnetic, superconducting and nano materials ,* University "Politehnica"of Bucharest, Bucharest, Romania, July 27-29, 2009; http://japmed6.elth.pub.ro/ (23)

20. P. D. Cristea, Rodica Tuduce, **Nucleotide Genomic Signal Comparative Analysis of Homo Sapiens and other Hominidae mtDNA**, *ISSCS 2009 – International Symposium on Signals, Circuits and Systems,* July 9-10, 2009, Iaşi, Romania, pp. 5-8. (24)

21. P. D. Cristea, Rodica Tuduce*, **Analysis of hominidae mitochondrial DNA fragments by using nucleotide genomic signals**, *DSP-2009 - 16th International Conference on Digital Signal Processing*, Santorini, Greece, July 05-07, 2009, S4P.11, IEEE Catalog Number: CFP09452 – CDR Library of Congress: 2008 909269, ISBN: 978-1-4244-3298-1. (25)

22. P. D. Cristea, Rodica Tuduce, **Mitochondrial Genomic Signals of Homo Sapiens and other Hominidae,** *CSCS-17 - 17th International Conference on Control Systems and Computer Science*, Bucharest, Romania, May 26 - 29, 2009. (26)

23. P. D. Cristea, Rodica Tuduce, **New Topics in Bioengineering,** *ICIE'09 - 4th International Conference on Interdisciplinarity In Education,* May 21-22, 2009, Vilnius, Lithuania. (27)

24. P. D. Cristea, Rodica Tuduce*, **Mitochondrial Genomic Signals of Homo sapiens and other Hominidae** (in Romanian), *Simpozionul Fr.I Rainer – 2009, Antropologia şi orizonturile ei*, Academia Română, January 28, 2009, Invited Plenary talk. (28)

25. Paul Cristea, Valeri Mladenov, Georgi Tsenov, Rodica Tuduce**, Prediction of Mycobacterium Tuberculosis (rpoB) nucleotide sequences by using neural networks**, *BGSIAM'08 – 3rd Annual Meeting of the Bulgaria Section of Society for Industrial and Applied Mathematics,* Sofia, December 22-23, 2008, pp. 23-27. (29)

26. P. D. Cristea, Rodica Tuduce, Jan Cornelis, **Inserts in Prokaryote Genomes**, *BIBE 2008 – 8th IEEE International Conference on Bioinformatics and BioEngineering*, October 8-10, 2008, Athens, Greece, Program Conference and Abstracts – pp. 65, Paper BI-3.1.4-278. IEEE Catalog Number CFP08266, ISBN: 978-1-4244-2845-8, Library of Congress: 2008907441. (30)

27. P. D. Cristea, Rodica Tuduce, **Aplications of genomic signals in study of pathogen variability**, (in Romanian), *National Symposium VIASAN-CEEX 2008,* Sinaia, September 28-30, 2008 (31)

28. Paul Cristea, Valeri Mladenov, Georgi Tsenov, Rodica Tuduce, Simona Petrakieva, **Application of neural networks, PCA and feature extraction for prediction of nucleotide sequences by using genomic signals**, *NEUREL-2008 – 9th Symposium on Neural Network Applications in Electrical Engineering,* Faculty of Electrical Engineering, University of Belgrade, Serbia, September 25-27, 2008, pp. 83-88. (32)

29. P. D. Cristea, Rodica Tuduce, Jan Cornelis, Adrian Munteanu, **Nucleotide Genomic Signal Analysis,** Proceedings of the *ICSES 2008 – International Conference on Signals and Electronic Systems,* Krakow, Poland, September 14-17, 2008, pp. 219-222. ISBN 978-83-88309-47-2, IEEE Catalog Number CFP0857-PRT. (33)

30. P. D. Cristea, Rodica Tuduce, Jan Cornelis, **Complementary Sequences for Coded Aperture Imaging**, *ELMAR – 2008 - 50th International Symposium Electronics in Marine*, Zadar, Croatia, September 10-13, 2008, pp. 53-56. (34)

31. P. D. Cristea, Rodica Tuduce, **Nucleotide Genomic Signal Analysis of *Pr* and *Rt* Variability Inducing *HIV* Drug Resistance,** *SIP 2008 – 10th International Conference on Signal and Image Processing,* Kailua-Kona, Hawaii, USA, Aaugust 18-20, 2008, pp. 288-293. (35)

32. P. D. Cristea, Rodica Tuduce, **Use of Nucleotide Genomic Signals in the Analysis of Variability and Inserts in Prokaryote Genomes,** *BIOCOMP'08 – International Conference on Bioinformatics and Computational Biology*, Las vegas, Nevada, USA, Ed. H.R. Arabnia, ISBN 1-60132-090-6, July 14-17, 2008, pp. 241-247. (36)

33. P. D. Cristea, Rodica Tuduce**, Detection and analysis of horizontal transfer in prokaryote genomes**, *ESBME – 6th European Symposium on Biomedical Engineering.* Chania, Grecia, June19-21, 2008, pp. S3-06. (37)

34. P. D. Cristea, Rodica Tuduce, **Molecular Investigation in Support of the Clinical Decision: Early Detection of Pathogen Drug Resistance**, *BSN 2008 — 5th International Workshop on Wearable and Implantable Body sensor Networks*, The Chinse University of Hong Kong, HKSAR, China, June 1-3, 2008, pp.276-279. (38)

35. P. D. Cristea, Rodica Tuduce, **Nucleotide Genomic Signal Analysis for the Detection of Pathogen Drug Resistance**, *ITAB 2008 – 5th International Conference on Information Technology and Application in Biomedicine,* Shenzhen, China, May 30-31,2008, pp.PS12-2. IEEE Cat.nr. CFP081ITA-CDR, ISBN: 978-1-4244-2255-5. (39)

36. P. D. Cristea, Rodica Tuduce, Valeri Maladenov,Georgi Tsenov, Simona Petrakieva, **Prediction of Nucleotide Sequencs by using Genomic Signals**, *Neural Networks 2008 –* 9th *WSEAS International Conference on Neural Networks,* Sofia, Bulgaria, May 2-4,2008, pp.107-112. ISBN: 978-960-6766-56-5, ISSN: 1790-5109. (40)

37. Rodica Tuduce, A. Munteanu, J. Cornelis, **Common Trend Extraction from Sets of Genomic Signals**, *ISCCSP 2008 - InternationalSymposiumon Communications,Control and SignalProcessing,* Malta, March 12-14, 2008, pp. 1206-1210. (41)

38. Dorina Bănică, Emilia Cazacu, D. Oţelea, P. D. Cristea, Rodica Tuduce, **Molecular Genetic Analysis of Nucleotide Polymorphisms Associated with Rifampin and Isoniazid Resistance in Human Isolates of Mycobacterium tuberculosis** , *ISCCSP 2008 – International Symposiumon Communications,Control and Signal Processing,* Malta, March 12-14, 2008, pp. 1222-1225. (42)

39. P. D. Cristea, Rodica Tuduce, **Analysis of inserts in prokaryote genomes**, *SPIE - BIOS 2008 – Conference 6859 on Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissue VI,* San Jose, California, USA, January 21-23, 2008, SPIE Photonics West, Technical Program, pp. 108. (43)

40. P. D. Cristea, Tuduce Rodica, Bujor Păvăloiu, **Methods of Digital Signal set Analysis**, *SNET 2007 – National Symposium of Theoretical Electrical Engineering*, Bucharest, Romania, October 12-14, 2007, pp. 161-166. ISBN 978-973-718-899-1-8. (44)

41. P. D. Cristea, Rodica Tuduce, I. Năstac, J. Cornelis, R. Deklerck, M. Andrei, **Signal Representation and Processing of Nucleotide Sequences**, *IEEE BIBE 2007 – 7th International Simposium on Bioinformatics and BioEngineering,*Harvard Medical School Boston, Massachusetss, USA, October 14-17, 2007, vol. II, pp.1214-1219. (45)

42. P. D. Cristea, Rodica Tuduce, Dorina Banică, **Variability Analysis of ADN Multidrug-Resistance Detection in *Mycobacterium Tuberculosis,*** *National Symposium of Excelence Medical Scientific Research*, Sibiu, Romania, 25-26 octombrie 2007, pp. 22. (46)

43.   P. D. Cristea, Rodica Tuduce, Bujor Păvăloiu, **Clusters of Related Signals,** *NSIP 2007 –* (47)
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44.   P. D. Cristea, Dorina Banică, Rodica Tuduce, **Genomic Nucleotide Signal Analysis of** (48)
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on Signal and Image Processing , Honolulu, Hawaii, USA, August 20 – 22, 2007, pp.471-476.

45.   P. D. Cristea, Rodica Tuduce, **Genomic Signals for the Study of Multiresistance Mutations in** (49)
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Iaşi, Romania, July 12-13, 2007, pp. 287-290.

46.   P. D. Cristea, R. Deklerck, J. Cornelis, Rodica Tuduce, I. Năstac, M. Andrei, **ANN Prediction** (50)
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Maribor, Slovenia, June 27-30, 2007, pp. 73-78.

47.   P. D. Cristea, Rodica Tuduce, Dorina Banică, **Genomic Signal Analysis of** *MT* **Mutations** (51)
Resulting in RMP Resistance**,** *IWSSIP 2007 -- 14th International Conference on Systems,*
Signals and Image Processing, Maribor, Slovenia, June 27 -30, 2007, pp.69-72.

48.   Veronica Stoian, Nicoleta Constantin, Alexandra Simon- Gruita, Georgiana Duta- Cornescu, F. (52)
Stanciu, Dorina Bănică, P. D. Cristea, Rodica Tuduce, **The identification of vitamin D**
Receptor Gene Polymorphisms: *Apa***I and** *Taq***I,** *CSCS 16 – The 16th International*
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49.   Dorina Bănică, Dan Oţelea, Paul Cristea, Rodica Tuduce, **Detection of Multidrug-Resistant** (53)
Mycobacterium tuberculosis **by Line Probe Assay and Real-Time PCR Technology,** *CSCS*
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2007, Bucharest, Romania, pp. 572-576.

50.   P. D. Cristea, Rodica Tuduce, Dorina Bănica, Karin Rodewald**, Phase Analysis of** (54)
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51.   P. D. Cristea, Rodica Tuduce, **Study of Pathogen Variability by using Genomic Signals,** (55)
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(EMBS) , August 30 – September 3, 2006, Ney York, USA.

52.   P. D. Cristea, Rodica Tuduce, **Genomic Signal Analysis of HIV-1 Clade F Protease and** (56)
Reverse Transcriptase Variability*, AIDS -2006, XVI International AIDS Conference Toronto*
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55.   P. D. Cristea, **Genomic signal analysis of Pathogen Variability,** *SPIE - BIOS 2006 –* (59)
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Jose, California USA, January 23-25, 2006, published in *Progress in Biomedical Optics and*
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56.   P. D. Cristea, Rodica Tuduce, D. Otelea, **HIV Reverse Transcriptase Gene,** *IWSSIP'05 – 12th* (60)
Intlt. Workshop on Systems, Signals & Image Processing, Chalkida, Greece, Sept.23-24,2005

57.   P. D. Cristea, D. Otelea, Rodica Tuduce, **Study of HIV Variability Based on Genomic Signal** (61)
Analysis of Protease and Reverse Transcriptase Genes, *EMBC'05 - 27th Annual International*
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58.   P. D. Cristea, Rodica Tuduce, B. Pavaloiu, M. Andrei, **Genomic Signal Analysis of HIV** (62)
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59.   P. D. Cristea, M. Andrei, **Method for the Analysis of RNA Secondary Structure,** *GSP 2005 -* (63)
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60. Paul CRISTEA, Rodica TUDUCE, **Variability study of HIV,** *GSP 2005 - International Workshop on Genomic Signal Processing,* University POLITEHNICA of Bucharest, Romania, July 11 - 13, 2005, pp. 115-120. ISBN-10: 973-708-131-5, ISBN-13: 978-973-708-131-5. (64)

61. P. D. Cristea, B. Pavaloiu, **Method for Small Genome Variability Studies,** *GSP 2005 - International Workshop on Genomic Signal Processing,* Univ. POLITEHNICA of Bucharest, July 11 - 13, 2005, pp.79-85. ISBN-10: 973-708-131-5, ISBN-13: 978-973-708-131-5. (65)

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64. P. D. Cristea, D. Otelea, Rodica Tuduce, **Study of HIV Variability Based on Genomic Signal Analysis of Protease and Reverse Transcriptase Genes**, *EMBC'05 - 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, September 1-4, 2005, Shanghai, China, , abstract pp. 360, full paper on CD, no. 1845. ISBN: 0-7803-8740-6, ISSN: 1094-687X (68)

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67. Paul CRISTEA, Rodica TUDUCE, **Variability study of HIV,** *GSP 2005 - International Workshop on Genomic Signal Processing,* University POLITEHNICA of Bucharest, Bucharest, Romania, July 11 - 13, 2005. (71)

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70. P. D. Cristea, **Structural and Functional Variability in PR Gene of HIV1 Clade F**, *CSCS-15 – 15th International Conference on Control Systems and Computer Science, IAFA 2005 – Interdisciplinary Applications of Fractal Analysis*, University "Politehnica" of Bucharest, Romania, May 25-27, 2005. (74)

71. P. D. Cristea, D. Otelea, Rodica Tuduce, **Genomic Signal Analysis of HIV Variability,** *SPIE - BIOS 2005 –Conference on Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues II,* San Jose, California USA, , San Jose, USA, January 24-27, 2005, paper 52, published in *Progress in Biomedical Optics and Imaging, Imaging, Manipulation, and Analysis of Biomolecules and Cells: Fundamentals and Applications III*, Editors/Chairs: D. V. Nicolau, J. Enderlien, R. C. Leif, D. L. Farkas, R. Raghavachari, Proceedings of SPIE, vol. 5699, Vol. 6, no. 14, pp. 362-372, ISSN 1605-7422, 2005. (75)

72. P. D. Cristea, Rodica Tuduce, **Genomic signal analysis,** *SCS 2003 - International Symposium on Signals, Circuits And Systems*, Vol. 1, July 10-11, Iaşi, 2003, pp. 10-11. (76)

73. P. D. Cristea, Rodica Tuduce, **Signal processing of genomic information: Mitochondrial genomic signals of hominidae,** *4th EURASIP Conf. EC-VIP-MC 2003, 4th EURASIP Conference focused on Video / Image Processing & Multimedia Communications*, Zagreb, Croatia, July 2-4, 2003, pp. 209-214. (77)

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76. P. D. Cristea, Tuduce R., **Statistical Analysis of Symbolic DNA Nucleotide Sequences,** *SMACD 2002 – 7th International Workshop on Symbolic Methods and Applications to Circuit Design*, Sinaia, Romania, October 10-11, 2002, pp. 141. (80)

2. Procesarea digitală a semnalelor şi imaginilor

2.1. Capitole în cărţi

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