

# Europass Curriculum Vitae

# Personal information

First name(s) / Surname(s) Andrei Paun

Address(es) Bucharest, Romania

Telephone(s) +40 729783738

E-mail andreipaun@gmail.com, apaun@fmi.unibuc.ro

Year of birth 1975

Gender Male

**Employment** 

Dates October 2013 – present

Name and address of employer University of Bucharest, Faculty of Mathematics and Computer Science

Str. Academiei nr.14, sector 1, C.P. 010014, Bucharest – Romania

Occupation and position held | Full Professor in Computer Science

Main activities and responsibilities Teaching Computer Science classes for undergraduate and master students; conducting research in the

area of Automata Theory, Membrane Computing; Supervising PhD and MSc. students

October 2007 – present

National Institute of Research and Development for Biological Sciences(INCDSB)

Splaiul Independentei nr. 296, sector 6, cod 060031, C.P. 17-16, Bucharest – Romania

CS I (senior researcher), since 2009 Department Head for the Bioinformatics at INCDSB. Research in Bioinformatics/Systems Biology; Manage a team of 11 researchers

October 2009 – August 2013

University of Bucharest, Faculty of Mathematics and Computer Science

Str. Academiei nr.14, sector 1, C.P. 010014, Bucharest – Romania

Associate Professor (Conferentiar Universitar) in Computer Science

Teaching Computer Science classes for undergraduate and master students; conducting research in the area of Automata Theory, Membrane Computing

September 2003 – September 2009

Louisiana Tech University

Ruston, Louisiana, 71272, USA

Tenured Associate Professor of Computer Science/ joint appointment with the Institute for Micromanufacturing

Teach undergraduate and graduate classes in Computer Science. Conduct research in Computer Science, supervise Master and Doctoral Students. 15 Master students and 3 PhD students graduated.



May 2003- September 2003

Rovira Y Virgili University, Avinguda Països Catalans, 26, Tarragona, Spain

Postdoctoral Researcher for Natural Sciences and Engineering Research Council of Canada (NSERC)

Perform research in Biocomputing.

September 1998-May 2003

University of Western Ontario, Department of Computer Science, London, Ontario, Canada

Perform Research in Finite Automata and Biocomputing

Education and training

Dates

April 2013

Title of qualification awarded

Habilitation in Computer Science

Principal subjects/occupational skills covered

Computer Science

Name and type of organisation providing education and training

University of Bucharest

Level in national or international classification

Ranked 1st in Romania and in top 650-700 in the world by QS World University Ranking 2015/2016

Dates

September 1999 – May 2003

Title of qualification awarded

Ph.D in Computer Science, homologated in Romania by CNATDCU

Principal subjects/occupational skills covered

Computer Science - Unconventional models of computation: DNA and membrane computing

Name and type of organisation providing education and training

University of Western Ontario, Department of Computer Science; Higher Education

Level in national or international classification

Ranked 7th among the Canadian Universities in 2015 and 201 in the World by the 2015 ARWU (Academic Ranking of World Universities).

Dates

September 1998- August 1999

Title of qualification awarded

M.Sc. in Computer Science

Principal subjects/occupational skills covered

Computer Science – Biocomputing

Name and type of organisation providing education and training

University of Western Ontario, Department of Computer Science; Higher Education.

Level in national or international classification

Ranked 7th among the Canadian Universities in 2015 and 201 in the World by the 2015 ARWU (Academic Ranking of World Universities).

Dates

October1994-June 1998

Title of qualification awarded

Bachelor of Science in Computer Science (Major) and Mathematics (Minor)

Principal subjects/occupational skills covered

Computational Biology, Automata Theory and Biocomputing

Name and type of organisation providing education and training

University of Bucharest, Romania; Higher Education

Level in national or international classification

Ranked 1st in Romania and in top 650-700 in the world by QS World University Ranking 2015/2016

Other language(s)

Romanian, English, Spanish

Mother tongue

Romanian

Self-assessment European level (\*)

(\*) Common European Framework of Reference for Languages

### Languages

English Spanish

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	B1	Independent user

Computer skills and competences

Blackboard, Moodle, ALEKS, WeBWork and TURNITIN systems used in the academic environment. Deep understanding of C, C++, JAVA, PASCAL, PROLOG, LISP and other programming languages.

Prizes, recognitions, awards

- a. Elected Director of the Research Council of the University of Bucharest (committee at the level of the senate of the University of Bucharest) since 2016.
- Director of the Exact Sciences Pillar of the University of Bucharest Research Institute, since 2014
- c. Grigore C. Moisil Prize (shared Computer Science/Matheatics) of the Romanian Academy of Science for Computer Science, awarded in December 2015.
- Reviewer in of the Romanian Agency for Quality Assurance in Higher Education (ARACIS) Agency member of the National Register of ARACIS reviewers for Computer Science, since 2015
- e. **Certified specialist** in the Management of Public Institutions, Bucharest University of Economic Studies, Faculty of Management, Bucharest, Romania, 2015.
- f. Member of the CNATDCU Computer Science section (one of 7-now 9- members nominated in September 2012) representing INCDSB – since 2012.
- g. Expert of the Executive Agency for Higher Education, Research, Development and Innovation Funding for PNII projects - 2012-2015.
- h. Awarded in 2011 the title of "Professor Bologna" from the associations of Romanian students (ANOSR) after being nominated by my students from University of Bucharest. More information at <a href="http://www.profitari.ro/">http://www.profitari.ro/</a> (so far the only Professor Bologna from the Faculty of Mathematics and Computer Science at the University of Bucharest).
- i. Hirsch Index 11 in ISI, H index 20 in Google Scholar, more than 465 citations in ISI, more than 1500 citations in Google scholar, more than 60 ISI papers, 8 books or book chapters in prestigious publishing houses. All publications are since 1997.
- j. The paper "The Power of Communication: P Systems with Symport/Antiport" was selected in 2002 by Thomson ISI Essential Science Indicators as one of the most influential/cited papers and ranks in the top 1% in the field.
- k. Received the top NSERC grants for PhD and postdoctoral researchers in Canada as PI
- Received the prestigious NSF and NIH and other grants as PI when activating in research in USA
- m. Received the CNCSIS-RP, CNCS-TE, ANCS-Partnerships type grants in Romania as PI (others as co-PI).

#### Articles in peer-reviewed journals

- 28. X. Zhang, L. Pan, A. Paun, On the Universality of Axon P Systems, IEEE Transactions on Neural Networks and Learning Systems, 26(11), 2816-2829, NOV 2015 DOI: 10.1109/TNNLS.2015.2396940 ranked as the top journal in Theoretical Computer Science according to the impact factor
- 27. M. Paun, Y. Li, Y. Cheng, I. Tusa, A. Paun, Segmenting microarray images using a contour-based method, Theoretical Computer Science, 68(1), 108-118, 2015, DOI: 10.1016/j.tcs.2015.07.036
- 26. A. Paun, P.Sosík, Three Universal Homogeneous Spiking Neural P Systems Using Max Spike. Fundam. Inform. 134(1-2): 167-182 (2014)
- 25. P. Sosík, A. Paun, A. Rodríguez-Patón: P systems with proteins on membranes characterize PSPACE. Theoretical Computer Science, vol. 488 (2013), 78-95
- 24. A. Paun, M. Paun, A. Rodriguez-Paton, M. Sidoroff, P Systems with proteins on Membranes: a Survey. *Int. J. Found. Comput. Sci.* 22(1): 39-53 (2011)
- 23. J. Jack, A. Paun, A. Rodriguez-Paton, A review of the nondeterministic waiting time algorithm. Natural Computing 10(1): 139-149 (2011)
- 22. P. Sosík, A. Paun, A. Rodríguez-Patón, D. Pérez, On the Power of Computing with Proteins on Membranes, Lecture Notes in Computer Science, 2010, Volume 5957/2010, 448-460.
- 21. O.H. Ibarra, A. Paun, A. Rodriguez-Paton, Sequential SNP systems based on min/max spike number, Theoretical Computer Science, vol. 410, iss. 30-32 (2009), 2982-2991. (ISI journal)
- 20. A. Paun, M. Paun, A. Rodriguez-Paton, On the Hopcroft's minimization technique for DFA and DFCA, Theoretical Computer Science, vol. 410, iss. 24-25 (2009), 2424-2430. (ISI journal)
- 19. Paun, B. Popa; P Systems with Proteins on Membranes. Fundamenta Informaticae, 72(4), 2006, pp. 467-483. (ISI journal)
- 18. C. Campeanu, A. Paun, J.R. Smith, Incremental construction of minimal deterministic finite cover automata. Theoretical Computer Science, 363(2), 2006, pp. 135-148 (ISI journal)
- 17. R. Freund, M. Oswald, A. Paun, Optimal Results for the Computational Completeness of Gemmating (Tissue) P Systems, International Journal of Foundations of Computer Science, 16(5), 2005, pp. 929-942. (ISI journal)
- 16. C. Campeanu, L. Kari, A. Paun, Results on Transforming NFA into DFCA, Fundamenta Informaticae, Vol 64, 2005, pp. 53-63. (ISI journal)
- 15. R. Freund, A. Paun, P systems with active membranes and without polarizations, Journal of Universal Computer Science and Soft Computing, 9 (9), 2005, pp. 657-663. (ISI journal)
- 14. S.N. Krishna, A. Paun, Results on Catalytic and Evolution-Communication P Systems, New Generation Computing, 22(4), 2004, pp. 377-394. (ISI journal)
- 13. C. Campeanu, A. Paun, Counting the Number of Minimal DFCA Obtained by Merging States, International Journal of Foundations of Computer Science, 14(6), 2003, pp. 995-1006. (ISI journal)
- 12. R. Belu, A. Paun, A. Belu, Neural Networks in Instrumentation, Measurement and Control, Romanian Journal of Information Science and Technology, 6(1-2), 2003, pp. 61-85. (ISI journal)
- 11. M. Ionescu, C. Martín-Vide, A. Paun, Gh. Paun, Unexpected universality results for three classes of P systems with symport/antiport, Natural Computing, Vol. 2, issue 4, 2003, pp. 337-348. (ISI journal)
- 10. A. Paun, Gh. Paun, G. Rozenberg, Computing by Communication in Networks of Membranes, International Journal of Foundations of Computer Science, Vol. 13, No. 6 (2002), pp. 779-798. (ISI journal)
- 9.C. Martin-Vide, A. Paun, G. Paun, G. Rozenberg, Membrane Systems with Coupled Transport: Universality and Normal Forms, Fundamenta Informaticae, 49, 1-3 (2002), pp. 1-15. (ISI journal)
- 8. C. Martin-Vide, A. Paun, G. Paun, On the Power of P Systems with Symport Rules. J. UCS 8(2): pp. 317-331 (2002) (ISI journal)
- 7. A. Paun, Gh. Paun, The Power of Communication: P Systems with Symport /Antiport, New Generation Computing, 20, 3 (2002), pp. 295-305. (ISI journal)
- 6. A. Paun, P Systems with Global Rules, Theory Comput. Systems, 35, (2002), pp. 471-481. ((ISI journal)
- 5. C. Campeanu, A. Paun, S. Yu, An Efficient Algorithm for Constructing Minimal Cover Automata for Finite Languages, International Journal of Foundations of Computer Science, 13, 1 (2002), pp. 83-97. (ISI journal)

  Andrei Paun

- 4. A. Paun, On P Systems with Partial Parallel Rewriting, Romanian Journal of Information Science and Technology, 4, 1-2 (2001), pp. 203-210.
- 3. A. Paun, On the Diameter of Various Classes of H Systems, J. Automata, Languages and Combinatorics, 5, 3 (2000), pp. 315-324.
- 2. A. Paun, On Time-Varying H systems, Bulletin of the EATCS, 67 (1999), pp. 157-164.
- 1. A. Paun, Controlled H Systems of a Small Radius, Fundamenta Informaticae, 31, 2 (1997), pp. 185-193. (ISI journal)

The paper "The Power of Communication: P Systems with Symport/Antiport" was selected by the Thomson ISI Essential Science Indicators as highly cited/influential paper and was estimated to be in the top 1% papers in the specified research area. The actual statement received from Thomson ISI was:

"This means that the number of citations your article received places it in the top 1% within its field according to Essential Science Indicators. Your work is highly influential, and is making a significant impact among your colleagues in your field of study."

# Articles in peer-reviewed international conference proceedings

- 31. T. Ahmed, G. DeLancy, A. Paun: A Case-Study on the Influence of Noise to Log-Gain Principles for Flux Dynamic Discovery. Int. Conf. on Membrane Computing 2012, Lecture Notes in Computer Science, vol. 7762, 2013, 88-100.
- 30. Paun, M. Sidoroff: Sequentially Induced by Spike Number in SNP Systems: Small Universal Machines. Int. Conf. on Membrane Computing 2011: 333-345
- 29. A. Paun, M. Paun, A. Rodríguez-Patón, J. Jack: Poster: Biochemical signaling: A discrete simulation with memory enhancement. ICCABS 2011: 257
- 28. J. Jack, A.Paun: The Nondeterministic Waiting Time Algorithm: A Review DCFS 2009: 29-46
- 27. P. Sosík, A. Paun, A. Rodríguez-Patón, D. Pérez: On the Power of Computing with Proteins on Membranes. Workshop on Membrane Computing 2009: 448-460
- 26. J. Jack, A. Paun, A. Rodriguez-Paton, Effects of HIV-1 Proteins on the Fas-Mediated Apoptotic Signaling Cascade: A Computational Study of Latent CD4+ T Cell Activation, Ninth Workshop on Molecular Computation, WMC9, Edinburgh (UK) July 28-31, 2008, 246-259.
- 25. A. Paun, M. Paun, A. Rodriguez-Paton, Hopcroft's minimization technique: queues or stacks?, CIAA 13, July 21-24, 2008, San Francisco, USA, Lecture Notes in Computer Science, Berlin, vol. 5148, 2008, pp. 78-91.
- 24. A. Paun, B. Popa, P Systems with Proteins on Membranes and Membrane Division, Proc of. Tenth International Conference Developments in Language Theory (DLT 2006), June 26-29, 2006, Santa Barbara, CA, USA, Lecture Notes in Computer Science, Berlin, vol. 4036, 2006 pp. 292-303 (ISI journal) 23. H. Nagda, A. Paun, A. Rodriguez-Paton, P Systems with Symport/Antiport and Time, Proc. of Workshop on Membrane Computing (at the crossroads of Cell Biology and Computing), WMC07, 17-21 July 2006, Lecture Notes in Computer Science, Berlin, vol. 4361, 2006, pp. 429-442.
- 22. C. Campeanu, A. Paun, J. R. Smith, Tight Bounds for the State Complexity of Deterministic Cover Automata, Proc. of Descriptional Complexity of Formal Systems, 8th Workshop, June 21-23, 2006, Las Cruces, New Mexico, USA (9 pages).
- 21. M. Ionescu, A. Paun, Gh. Paun, M.J. Pérez-Jiménez, Computing with Spiking Neural P Systems: Traces and Small Universal Systems, Proc. of 12th Intern. Meeting on DNA Based Computers (DNA 2006), June 5-9, Seoul, Korea, pp. 1-16.
- 20. O.H. Ibarra, S. Woodworth, F. Yu, A. Paun, On Spiking Neural P Systems and Partially Blind Counter Machines. Proc. Of 5th International Conference on Unconventional Computation (UC 2006), 4th-8th September 2006, York, UK, pp. 113-129. (ISI journal)
- 19. C. Campeanu, A. Paun, J. R. Smith, An Incremental Algorithm for Minimal Deterministic Finite Cover Automata, Proc. of Tenth International Conference on Implementation and Application of Automata (CIAA05), June 27–29, 2005, Sophia Antipolis, France, pp. 90-103; (the conference had approximately 30% acceptance rate) also in Lecture Notes in Computer Science, Berlin, Volume 3845/2006 pages 90-103. (ISI journal)
- 18. O.H. Ibarra, A. Paun, Counting Time in Computing with Cells, Proc. of 11th Intern. Meeting on DNA Based Computers (DNA11), June 6-9, 2005, London Ontario, Canada, pp. 112-128, also in Lecture Notes in Computer Science, Volume 3892/2006, Berlin, pages 112-128. (ISI journal)

- 17. C. Campeanu, A. Paun, NFA to DFCA Transformations For Binary Alphabets, Proc. of Ninth International Conference on Implementation and Application of Automata (CIAA 2004), Kingston, Canada (2004). (ISI journal)
- 16. C. Campeanu, A. Paun, Lower Bounds for NFA to DFCA Transformations, Proc. of Descriptional Complexity of Formal Systems, 6th Workshop, London, Ontario, Canada (2004) (10 pages).
- 15. R. Freund, M. Oswald, A. Paun, Extended Gemmating P Systems are Computationally Complete with Four Membranes, Proc. of Descriptional Complexity of Formal Systems, 6th Workshop, London, Ontario, Canada (2004) (10 pages).
- 14. R. Freund, M. Oswald, A. Paun, P systems generating trees, Proc. of Workshop on Membrane Computing 2004 (WMC5), Milano, Italy, 2004, pp. 221-232 also in Lecture Notes in Computer Science, 3365, Berlin, (2004), pp. 309-319. (ISI journal)
- 13. C. Campeanu, A. Paun, Computing Beyond the Turing Limit Using the H Systems, Proc. of the Tenth International Meeting on DNA Computing (DNA10), Milan, (2004), pp. 314-323 also in Lecture Notes in Computer Science, 3384, Berlin, (2005), pp. 24-34. (ISI journal)
- 12. F. Bernardini, A. Paun, Universality of Minimal Symport/Antiport: Five Membranes Suffice, Lecture Notes in Computer Science, 2933, Berlin, (2004), pp. 43-54. (ISI journal)
- 11. R. Freund, A. Paun, Membrane Systems with Symport/Antiport: Universality Results, Lecture Notes in Computer Science, 2597, Berlin, (2003), pp. 270-287. (ISI journal)
- 10 M. Ionescu, C. Martín-Vide, A. Paun, Gh. Paun: Unexpected Universality Results for Three Classes of P Systems with Symport/Antiport. DNA 2002: LNCS, Volume 2568/2003, pp.281-290 (ISI journal)
- 9. C. Campeanu, A. Paun, The Number of Similarity Relations and the Number of Minimal Deterministic Finite Cover Automata, Proc. of 7th International Conference on Implementation and Application of Automata (CIAA 2002), Tours, France, 2002, pp. 71-80. (ISI journal)
- 8. M. Ionescu, C. Martin-Vide, A. Paun, Gh. Paun, Membrane Systems with Symport/Antiport: (Unexpected) Universality Results, Proc. of 8th Intern. Meeting on DNA Based Computers (DNA8) (M. Hagiya, A. Obuchi, eds.), Hokkaido University, Sapporo, Japan, 2002, pp. 151-160.
- 7. A. Paun, P Systems with string-objects: Universality results, Proc. of Workshop on Membrane Computing (WMC-CdeA 2001), Curtea-de-Arges, Romania, 2001, pp. 229-242.
- 6. A. Paun, On P Systems with Global Rules. Proc. of 7th Intern. Meeting on DNA Based Computers (DNA7) (N. Jonoska, N.C. Seeman, eds.), Tampa, Florida, USA, 2001, pp. 43-52.
- 5. A. Paun, On P Systems with Active Membranes, Proc. of UMC2K, in Discrete Mathematics and Theoretical Computer Science, Springer (I. Antoniou, C.S. Calude, M.J. Dinneen, eds.), Brussels, Belgium, 2000, pp. 187-201.
- 4. A. Paun, N. Santean, S. Yu, An O(n²) Algorithm for Constructing Minimal Cover Automata for Finite Languages, Proc. of Fifth International Conference on Implementation and Application of Automata (CIAA 2000) (M. Daley, M. Eramian, S. Yu, eds.), London, Ontario, 2000, pp. 233-241. (ISI journal)
- 3. A. Paun, On the Diameter of Various Classes of H Systems, Proc. of Intern. Workshop on Descriptional Complexity of Automata, Grammars and Related Structures (DCAGRS '99) (J. Dassow, D. Wotschke, eds.), Magdeburg, Germany, 1999, pp. 165-174.
- 2. A. Paun, M. Paun, State and Transition Complexity of Watson-Crick Finite Automata, Proc. of Fundamentals of Computation Theory Conf. (FCT'99) Iasi, 1999, Lecture Notes in Computer Science, 1684, Springer-Verlag, Berlin, 1999, pp. 409-420. (ISI journal)
- 1. A. Paun, M. Paun, Controlled and Distributed H Systems of a Small Radius, Computing with Bio-Molecules; Theory and Experiments, Springer, Singapore, 1998, pp. 239-254.

## Other Publications

- 10. A. Paun, M.Sidoroff, Small Universal Homogenous Spiking Neural P Systems Using Max Spike, "Days of Computer Science" (DACS 2015), Satellite workshop of ICTAC 2014, Bucharest, Romania
- 9. S. Ni, P. Wang, M. Paun, W. Dai, A. Paun, "Spotted cDNA microarray image segmentation using ACWE", ROMJIST, Volume 12, Number 2, 2009, pp. 249-263 (ISI journal)
- 8. L. Kari, C. Martin-Vide, A. Paun, On the Universality of P Systems with Minimal Symport/Antiport Rules, Lecture Notes in Computer Science, 2950, Berlin, (2004), pp. 254-265. (ISI journal)

- 7. R. Freund, A. Paun, P Systems with Active Membranes and without Polarizations, Dept. of Computer Sciences and Artificial Intelligence, Univ. of Sevilla Tech. Rep 01/2004, Second Brainstorming Week on Membrane Computing, Sevilla, Spain, Feb 2-7, 2004, pp. 193-205.
- 6. S.N. Krishna, A. Paun, Some Universality Results on Evolution-Communication P Systems, Rovira i Virgili Univ., Tech. Rep. No. 26, Brainstorming Week on Membrane Computing; Tarragona, 2003, pp. 207-215.
- 5. S.N. Krishna, A. Paun, Three Universality Results on P Systems, Rovira i Virgili Univ., Tech. Rep. No. 26, Brainstorming Week on Membrane Computing; Tarragona, 2003, pp. 198-206.
- 4. C. Martin-Vide, A. Paun, Gh. Paun, Membrane Computing: New Results, New Problems, Bulletin of the EATCS, 78 (2002), pp. 204-212.
- 3. L. Kari, A. Paun, String Operations Suggested by DNA Biochemistry: the Balanced Cut Operation, Words, Semigroups & Transductions (M. Ito, et. al., eds.), World Scientific, Singapore, 2001, pp. 275-287.
- 2. A. Paun, Gh. Paun, A. Rodriguez-Paton, Further Remarks on P Systems with Symport Rules, An. Stiint. Univ. Al. I. Cuza lasi Inform. 10 (2001), pp. 3-18.
- 1. A. Paun, M. Paun, On the Membrane Computing Based on Splicing, Where Mathematics, Computer Science, Linguistics and Biology Meet (C. Martin-Vide, V. Mitrana, eds.), Kluwer, Dordrecht, 2001, pp. 409-422

#### **Books and Book Chapters**

- 7. A. Paun, M. Paun, Analiza Statistica Folosind Limbajul R, Editurre Matrix, Bucuresti, 189 pp, 2009.
- 6. R. Freund, O. Ibarra, A. Paun, P. Sosik, H-C. Yen, Catalytic P systems, book chapter in Membrane Computing Handbook, Oxford University Press, 2010.
- 5. O.H Ibarra, A. Leporati, A. Paun, S. Woodworth, Spiking Neural P Systems: Characterizations and Complexity, book chapter in Membrane Computing Handbook, Oxford University Press, 2010.
- 4. A. Paun, Computability of the DNA and Cells: Splicing and Membrane Computing, SBEB Publishing, 378 pages, 2008, ISBN: 978-0-9802368-4-2.
- 3. A. Paun, I. Stanciu, A. Bancila, B. Popa, Calculabilitatea pe baza de membrane si proteine, capitol de carte in Bioinformatica vol II, Tehnica, 131 pages, 2008, ISBN: 978-973-31-2342-2.
- 2. O.H. Ibarra, A. Paun, Membrane Systems: A "Natural" Way of Computing with Cells, book chapter (chapter 3, 26 pages), in S. Rajasekaran, J.Reif, eds., Handbook of Parallel Computing: Models, Algorithms and Applications (Chapman & Hall/Crc Computer & Information Science Series), 2007, ISBN: 978-1584886235.
- 1. S. Yu, A. Paun, eds., Implementation and Application of Automata, Lecture Notes in Computer Science 2088, Springer-Verlag, Berlin, 2001. ISBN: 978-3540424918.

# **Research Grants**

- 2014 Identificarea, caracterizarea si utilizarea bioresurselor pentru obtinerea de substante utile in scopul valorificarii acestora si conservarii biodiversitatii, BIODIV 109, (Key Person: Andrei Paun).
- 2013 MACROREGION: CAPACITY BUILDING AND EXCELLENCE IN RIVER SYSTEMS (BASIN, DELTA AND SEA) –DANCERS, FP7-ENVIRONMENT, Seventh Framework Programme, #603805, 2013-2015, 99933 EURO .(Key Person: Andrei Paun)
- 2013 Pregatirea propunerii de proiect ESFRI privind realizarea Centrului International "DUNAREA" DE STUDII AVANSATE PENTRU SISTEME FLUVII-DELTE-MARI", plan sectorial, consortiul condus de Institutul National de Cercetare-Dezvoltare pentru Geologie si Geoecologie Marină GEOECOMAR, perioada de derulare 2013-2014, funded 1. 800.000RON (Key Person: Andrei Paun)
- 2011 Research grant from Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)- (PNII-TE 97/2011); Project Title :: "Dezvoltarea unei noi tehnici de segmentare a DNA Arrays", funded 750. 000 RON (2011-2014).
- 2010 Research grant from Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)- (PNII-TE 92/2010): (Project Director Andrei Paun), Project Title: Simulare de celule cu tehnici stocastice discrete, 750. 000 RON (2010-2013)

- 2009 Research grant NUCLEU for National Institute of Research and Development for Biological Sciences, Bucharest. (Project Director (faza1/2009): Andrei Paun), title: Biodiv, 142.052 RON (15 June-15 September 2009)
- 2007 Research grant from Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)- (PNII-RP13): (Project Director Andrei Paun), Project Title : Sisteme de Membrane, Automate si Proteine, 509.812 RON (2007-2009)
- 2007 Research grant from the National Center for Program Management (PNII): PC-1284 (Project director Andrei Paun), project title: Simulare de Celule cu Sisteme de Membrane, 2.000.000 RON (2007-2010)
- 2005 Collaborative research grant from National Science Foundation (SUA) CCF-0523572(Investigator Principal: Andrei Paun), project title: "Bio Computing: Collaborative Research: P Systems Theory and Applications to Modeling and Simulation of Cells", \$150,000 (2005-2008).
- 2004- Louisiana Board of Regents RCS contract LEQSF (2004-2007)-RD-A-23(Principal Investigator: Andrei Paun) title: "A New Method for Simulating Cells Globally", \$120,800 (2004-2007).
- 2004- National Science Foundation (NSF) DMR 0414903(Co-PI: Andrei Paun): title: "IMR: Acquisition of a SGI Origin350 for Nano/Bio-Technology Computational Research and Student Training": \$186,720 (2004-2007).

#### Memberships

- Association for Computing Machinery (ACM), since 2002
- European Association for Theoretical Computer Science (EATCS), since 2002
- Institute of Electrical and Electronics Engineers (IEEE) and IEEE Computer Society, since 2002

#### **Professional Development**

- April 2006 Referee member in NSF panel for grants in Computational Biology area
- Reviewer for Acta Cybernetica, Dynamics of Continuous, Discrete and Impulsive Systems, International Journal of Foundations of Computer Science, Journal of Automata, Languages and Combinatorics, Theoretical Computer Science Journals.
- Reviewer for the WIA'98, WIA'99; CIAA'2000, CIAA'2001, CIAA'2002; DNA 7, DNA 8; FCT'99; DCAGRS'99, DCAGRS'2000, CIAA2004, DLT2004, CIAA2005, DLT2005, CIAA2006, DLT2006, DCFS2006, DNA2007, CIAA2007, DLT2007, LTB07, CIAA2008, DLT2008, FICCC08, ISBRA2011, ISBRA2012, ISBRA2013, BIC-TA2013, ICCABS2013, ISBRA2014, DACS2014, ISBRA2015, BICTA2015 international conferences.

#### Program Committee Member for the following international conferences

- Program Committee member for the 10<sup>th</sup> International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2015) September 25-28, 2015, Hefei, China
- Program Committee member for the 11th International Symposium on Bioinformatics Research and Applications (ISBRA'15), Norfolk, Virginia, USA, June 7-10, 2015
- Program Committee member for the 9<sup>th</sup> International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2014) October 16–19, 2014, Wuhan, China
- Program Committee member for the 10th International Symposium on Bioinformatics Research and Applications (ISBRA'14), Zhangjiajie, China. June 28-30, 2014
- Program Committee member for the 8<sup>th</sup> International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2014) July 12-14 2013, Huang Shan, China
- Program Committee member for the 9th International Symposium on Bioinformatics Research and Applications (ISBRA'13), Charlotte, North Carolina, USA, May 20-22, 2013
- Program Committee member for the 8th International Symposium on Bioinformatics Research and Applications (ISBRA'12), Dallas, Texas, USA, May 21-23, 2012.

- Program Committee member for the 7th International Symposium on Bioinformatics Research and Applications (ISBRA'11), Changsha, China, May 27-29, 2011.
- Program Committee member for Sixtieth International Conference on Implementation and Application of Automata (CIAA2011) (Blois, France, July 12-16, 2011)
- •Program Committee member for Sixteenth International Meeting on DNA Computing (DNA 16), Hong Kong, China, June 14-17, 2010
- Program Committee member for Fifteenth International Conference on Implementation and Application of Automata (CIAA2010) (Winnipeg, Manitoba, Canada, August 12-15, 2010)
- Program Committee member for the 6th International Symposium on Bioinformatics Research and Applications (ISBRA'10), May 23-26, 2010 at the University of Connecticut in Storrs, CT.
- Program Committee member for Fifteenth International Meeting on DNA Computing (DNA 15), Fayetteville, Arkansas, USA, 2009
- Program Committee member for Thirteenth International Conference on Implementation and Application of Automata (CIAA2008) (Santa Barbara, 2008)
- Program Committee member for Third International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2008) Adelaide, Australia, 2008.
- Program Committee member for First International Conference on Contemporary Computing (NOIDA, (outskirts of New Delhi), India 2008)
- · Language Theory in Biocomputing 07 (Kingston, Canada 2007) · DNA13 (Memphis, USA, 2007)
- Eleventh Conference on Implementation and Application of Automata (CIAA06) (Taipei, Taiwan 2006).
- Organizing committee member for the fifth Conference on Implementation and Application of Automata (CIAA 2000) and the Half Century of Automata Theory Celebration and Inspiration (HCAT), London, Ontario, Canada, 2000

#### **Invited Seminars**

- Zhengzhou University of Light Industry, China, September, 2015
   Title: From Biology to Computer Science and back: P Systems and discrete simulations of apoptotic pathways
- Institute of Mathematics "Simion Stoilow" of the Romanian Academy, May 2015
   Title: From Biology to Computer Science and back: Cover automata, P Systems and discrete simulations of apoptotic pathways
- Princeton University (NSF workshop on Emerging Models and Technologies for Computation: Bio-Inspired Computing and the Biology and Computer Science Interface) June 2008
   Title: Discrete nondeterministic modeling of cellular pathways
- The Microsoft Research University of Trento: Centre for Computational and Systems Biology (COSBI) March 2008,

Title: Discrete nondeterministic modeling of cellular pathways

IBM T.J. Watson Research Center, March 2007.

Title: Membrane systems and automata

- University of California at Santa Barbara, Santa Barbara, USA, October 2005.
   Title: Membrane Systems: An Unconventional Model of Computation
- Vienna University of Technology, Austria, June 2003.
   Title: New Topics in Biocomputing: Membrane Systems
- Rovira i Virgili University, Tarragona, Spain, July 2002.
   Title: Membrane Systems with Symport/Antiport Rules. Basic Classes and Basic Results
- Binghamton University, State University of New York, Binghamton, USA, Aprilie 2002.
   Title: P Systems with Symport/Antiport

Doctoral Students supervised at Louisiana Tech University

- Shenghua Ni, graduated March 2010, Dissertation: "DNA microarray image segmentation using Active Contours Without Edges method", currently Database Analyst at Vanderbilt University, USA.
- John Jack, graduated May 2009, Dissertation: "Discrete Nondeterministic Modeling of Biochemical Networks", currently Postdoctoral Research at EPA, USA.
- Bianca Popa, graduated November 2006, Dissertation: "Membrane systems with limited parallelism", currently programmer analyst at Softwin, Romania.

Doctoral Students under supervision at University of Bucharest all in progress:

Cristian Teodor TUDOR since October 2015

Daniela CHEPTEA since October 2015

Mircea DIGULESCU since October 2014

A list of publications and bibliometric information can be obtained through ResearcherID Number: A-5292-2008