



Manuel Garcia–Quismondo

Curriculum Vitae

Education

- 07/2011– **PhD in Computer Science**, *Higher Technical School of Computer Engineering*.
01/2014 *University of Seville, Seville, Spain.*
 - Thesis Modelling and simulation of real–life phenomena in Membrane Computing
 - Advisors Prof. Mario J. Pérez–Jiménez and PhD. Miguel A. Martínez–del–Amor
- 09/2009– **MEng in Logic, Computing and Artificial Intelligence**, *Higher Technical School of Computer Engineering*.
07/2011 *University of Seville, Seville, Spain.*
 - Thesis Modelling a prey–predator system using P systems
 - Advisors PhD. Ignacio Pérez–Hurtado and PhD. Francisco J. Romero–Campero
- 09/2007– **BEng in Computer Science**, *Higher Technical School of Computer Engineering*.
07/2009 *University of Seville, Seville, Spain.*
 - Thesis Development of a Programming Environment in Eclipse for Membrane Computing
 - Advisors Prof. Agustín Riscos–Núñez and PhD. Ignacio Pérez–Hurtado
- 09/2003– **BEng in Electrical and Computer Engineering**, *Higher Technical School of Computer Engineering*.
08/2007 *University of Seville, Seville, Spain.*
 - Thesis Elimination of Forbidden Graphs by using Nauty
 - Advisor Prof. José R. Portillo–Fernández

Academic Experience

- 02/2018– **Senior Research Analyst**, *Icahn School of Medicine at Mount Sinai, New York, NY, USA.*
02/2019
- 02/2017– **Postdoctoral Research Associate**, *Rensselaer Polytechnic Institute, Troy, NY, USA.*
02/2018
- 01/2017– **Research Visitor**, *Tufts University, Medford, MA, USA.*
02/2017
- 10/2015– **Postdoctoral Associate**, *Smithsonian Institution and Rutgers University, Washington, DC, USA.*
12/2016
- 03/2014– **Postdoctoral Fellow**, *University of Minnesota, St. Paul, MN, USA.*
09/2015

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🔗 <https://github.com/manugarciaquismondo/>  <https://publons.com/author/1346502/>

Publications

Journal Articles

- 2018 **M. García-Quismondo**, I. C. T. Nisbet, C. Mostello, J. M. Reed, “Modeling Population Dynamics of Roseate Terns (*Sterna dougallii*) in the Northwest Atlantic Ocean”, *Ecological Modelling*, vol. 368, pp. 298–311.
- 2017 **M. García-Quismondo**, M. Levin, D. Lobo, “Modeling regenerative processes with membrane computing”, *Information Sciences*, vol. 381, pp. 229–249, ISSN: 0020-0255. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0020025516318187>.
- M. García-Quismondo**, J. M. Reed, F. S. Chew, M. A. M. Amor, M. J. Pérez-Jiménez, “Evolutionary response of a native butterfly to concurrent plant invasions: simulation of population dynamics”, *Ecological Modelling*, vol. 360, pp. 410–424, ISSN: 0304-3800. DOI: 10.1016/j.ecolmodel.2017.06.030.
- 2015 M. A. Martínez-del-Amor, **M. García-Quismondo**, L. F. Macías-Ramos, L. Valencia-Cabrera, A. Riscos-Núñez, M. J. Pérez-Jiménez, “Simulating P Systems on GPU Devices: A Survey”, *Fundamenta Informaticae*, vol. 136, pp. 269–284, ISSN: 0169-2968. DOI: 10.3233/FI-2015-1157. [Online]. Available: <http://iospress.metapress.com/content/101684hh3785365u/>.
- 2014 **M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “Probabilistic Guarded P Systems, A New Formal Modelling Framework”, *Lecture Notes in Computer Science*, vol. 8961, pp. 194–214, ISSN: 0302-9743. [Online]. Available: http://link.springer.com/chapter/10.1007/978-3-319-14370-5_12.
- 2013 M. Gheorghe, F. Ipate, R. Lefticaru, M. J. Pérez-Jiménez, A. Turcanu, L. Valencia-Cabrera, **M. García-Quismondo**, L. Mierla, “3-COL problem modelling using simple Kernel P systems”, *International Journal of Computer Mathematics*, vol. 90, pp. 816–830, ISSN: 0020-7160. DOI: 10.1080/00207160.2012.743712. [Online]. Available: <http://dx.doi.org/10.1080/00207160.2012.743712>.
- M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, L. F. Macías-Ramos, L. Valencia-Cabrera, Á. Romero-Jiménez, C. Graciani-Díaz, A. Riscos-Núñez, M. A. Colomer, M. J. Pérez-Jiménez, “DCBA: Simulating population dynamics P systems with proportional objects distribution”, *Lecture Notes in Computer Science*, E. Csuha-Varjú, M. Gheorghe, G. Rozenberg, A. Salomaa, G. Vaszil, Eds., pp. 257–276, ISSN: 0302-9743. DOI: 10.1007/978-3-642-36751-9_18. [Online]. Available: http://link.springer.com/chapter/10.1007/978-3-642-36751-9_18.
- L. Valencia-Cabrera, **M. García-Quismondo**, M. J. Pérez-Jiménez, Y. Su, H. Yu, L. Pan, “Modeling Logic Gene Networks by Means of Probabilistic Dynamic P Systems”, *International Journal of Unconventional Computing*, vol. 9, no. 5-6, pp. 445–464, ISSN: 1548-7199. [Online]. Available: <http://www.oldcitypublishing.com/IJUC/IJUCcontents/IJUCv9n5-6contents.html>.

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- 2012 L. F. Macías-Ramos, I. Pérez-Hurtado, **M. García-Quismondo**, L. Valencia-Cabrera, M. J. Pérez-Jiménez, A. Riscos-Núñez, "A P-Lingua based simulator for Spiking Neural P systems", *Lecture Notes in Computer Science*, vol. 7184, pp. 257–281, ISSN: 0302-9743. DOI: 10.1007/978-3-642-28024-5_18. [Online]. Available: <http://www.springerlink.com/content/jrtrt4273v3086m7/>.
- 2010 **M. García-Quismondo**, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, A. Riscos-Núñez, "An overview of P-Lingua 2.0", *Lecture Notes in Computer Science*, vol. 5957, pp. 264–288, Membrane Computing, 10th International Workshop, WMC 2009, Curtea de Arges, Romania, August 24–27, 2009, Revised Selected and Invited Papers., ISSN: 0302-9743. DOI: 10.1007/978-3-642-11467-0_20. [Online]. Available: <http://springerlink.com/content/9019651332615113/?p=4515b9a3d094496995e253d08e41004d&pi=19>.
- 2009 **M. García-Quismondo**, R. Gutiérrez-Escudero, M. A. Martínez-del-Amor, E. F. Orejuela-Pinedo, I. Pérez-Hurtado, "P-Lingua 2.0: A software framework for cell-like P systems", *International Journal of Computers, Communications and Control*, vol. IV, pp. 234–243, ISSN: 1841-9836. [Online]. Available: http://www.journal.univagora.ro/?page=article_details&id=368.

Edited Books

- 2013 L. Valencia-Cabrera, **M. García-Quismondo**, L. F. Macías-Ramos, M. A. Martínez-del-Amor, G. Paun, M. J. Pérez-Jiménez, Eds., *Proceedings of the Eleventh Brainstorming Week on Membrane Computing (11BWMC)*, Sevilla, España: Fénix Editora, pp. x+272, ISBN: 978-84-940691-9-2. [Online]. Available: <http://www.gcn.us.es/files/11bwmc/contents.pdf>.
- 2012 **M. García-Quismondo**, L. F. Macías-Ramos, G. Paun, L. Valencia-Cabrera, Eds., *Proceedings of the Tenth Brainstorming Week on Membrane Computing*, vol. II, Sevilla, España: Fénix Editora, pp. xiv+292. [Online]. Available: <http://www.gcn.us.es/10BWMC/10BWMCvolIII/bravo12012II.pdf>.

Book Chapters

- 2014 M. A. Colomer, **M. García-Quismondo**, L. F. Macías-Ramos, M. A. Martínez-del-Amor, I. Pérez-Hurtado, M. J. Pérez-Jiménez, A. Riscos-Núñez, L. Valencia-Cabrera, "Membrane System-Based Models for Specifying Dynamical Population Systems", in *Applications of Membrane Computing in Systems and Synthetic Biology*, ser. Emergence, Complexity and Computation. Amsterdam, the Netherlands: Springer Verlag, vol. 7, ch. 4, pp. 97–132. [Online]. Available: <http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-319-03190-3>.
- 2013 **M. García-Quismondo**, L. F. Macías-Ramos, M. J. Pérez-Jiménez, "Implementing Enzymatic Numerical P Systems for AI Applications by means of Graphic Processing Units", in *Beyond Artificial Intelligence: Contemplations, Expectations, Applications*. Berlin, Germany: Springer Verlag, ch. 14, pp. 137–157, ISBN: 978-3642344213. DOI: http://dx.doi.org/10.1007/978-3-642-34422-0_10. [Online]. Available: <http://www.amazon.com/Beyond-Artificial-Intelligence-Contemplations-Expectations/dp/3642344216>.

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Conference Contributions

- 2014 **M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “Probabilistic Guarded P Systems, A formal Definition”, in *Twelfth Brainstorming Week on Membrane Computing (BWMC2014)*, Fénix Editora, pp. 183–206, ISBN: 978-84-940056-4-0. [Online]. Available: http://www.gcn.us.es/12bwmc_proceedings.
- M. García-Quismondo**, M. A. Martínez-del-Amor, M. J. Pérez-Jiménez, “Probabilistic Guarded P systems, a New Formal Modelling Framework”, in *15th Conference on Membrane Computing, pre-proceedings*, Opava, Czech Republic, pp. 169–190, ISBN: 978-80-7510-036-8. [Online]. Available: http://cmc15.slu.cz/wp-content/uploads/2014/01/cmc15_proceedings.pdf.
- 2013 M. Gheorghe, F. Ipate, C. Dragomir, L. Mierla, L. Valencia-Cabrera, **M. García-Quismondo**, M. J. Pérez-Jiménez, “Kernel P Systems - Version I”, in *Eleventh Brainstorming Week on Membrane Computing (11BWMC)*, Sevilla, España: Fénix Editora, pp. 97–124, ISBN: 978-84-940691-9-2. [Online]. Available: http://www.gcn.us.es/files/11bwmc/097_gheorghe_ipate.pdf.
- L. Valencia-Cabrera, **M. García-Quismondo**, M. J. Pérez-Jiménez, Y. Su, H. Yu, L. Pan, “Analysing Gene Networks with PDP Systems. Arabidopsis thaliana, a Case Study”, in *Eleventh Brainstorming Week on Membrane Computing (11BWMC)*, Sevilla, España: Fénix Editora, pp. 257–272, ISBN: 978-84-940691-9-2. [Online]. Available: http://www.gcn.us.es/files/11bwmc/257_valencia_cabrera.pdf.
- 2012 **M. García-Quismondo**, A. B. Pavel, M. J. Pérez-Jiménez, “Simulating large-scale ENPS models by means of GPU”, in *Tenth Brainstorming Week on Membrane Computing*, vol. I, Seville, Spain: Fénix Editora, pp. 137–152. [Online]. Available: http://www.gcn.us.es/10BWMC/10BWMCvolI/papers/Simulating_complex_ENPS_models_by_means_of_GPU_complete.pdf.
- M. García-Quismondo**, L. Valencia-Cabrera, Y. Su, M. J. Pérez-Jiménez, L. Pan, H. Yu, “Modeling logic gene networks by means of probabilistic dynamic P systems”, in *Asian Conference on Membrane Computing*, L. Pan, G. Paun, T. Song, Eds., Wuhan, China, pp. 30–60.
- M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, L. F. Macías-Ramos, L. Valencia-Cabrera, Á. Romero-Jiménez, C. Graciani-Díaz, A. Riscos-Núñez, M. A. Colomer, M. J. Pérez-Jiménez, “DCBA: Simulating population dynamics P systems with proportional object distribution”, in *13th International Conference on Membrane Computing (CMC13)*, Budapest, Hungary, pp. 291–310, ISBN: 978-963-311-372-1. [Online]. Available: <http://www.sztaki.hu/tcs/proba/cmc13/CMC13-proceedings.pdf>.

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M. A. Martínez-del-Amor, I. Pérez-Hurtado, **M. García-Quismondo**, L. F. Macías-Ramos, L. Valencia-Cabrera, Á. Romero-Jiménez, C. Graciani-Díaz, A. Riscos-Núñez, M. A. Colomer, M. J. Pérez-Jiménez, "DCBA: Simulating Population Dynamics P Systems with Proportional Object Distribution", in *Tenth Brainstorming Week on Membrane Computing*, vol. II, Seville, Spain: Fénix Editora, pp. 27–56. [Online]. Available: <http://www.gcn.us.es/10BWMC/10BWMCvolII/papers/dcba.pdf>.

- 2011 **M. García-Quismondo**, L. F. Macías-Ramos, M. J. Pérez-Jiménez, "Implementing ENPS by means of GPUs for AI applications", in *Interdisciplinary Aspects of Artificial Intelligence*, Pilsen, Czech Republic: University of West Bohemia, Pilsen, pp. 27–33. [Online]. Available: http://beyondai.zcu.cz/files/BAI2011_proceedings.pdf.

L. F. Macías-Ramos, I. Pérez-Hurtado, **M. García-Quismondo**, L. Valencia-Cabrera, M. J. Pérez-Jiménez, A. Riscos-Núñez, "A P-Lingua based Simulator for Spiking Neural P Systems", in *Proceedings of the 12th International Conference on Membrane Computing (CMC12)*, Fontainebleau, France, pp. 323–346. [Online]. Available: <http://cmc12.lacl.fr/cmc12proceedings.pdf>.

- 2010 D. Díaz-Pernil, C. M. Fernández-Márquez, **M. García-Quismondo**, M. A. Gutiérrez-Naranjo, M. A. Martínez-del-Amor, "A Cellular Sudoku Solver", in *Eighth Brainstorming Week on Membrane Computing*, Sevilla, Spain: Fénix Editora, pp. 77–88, ISBN: 978-84-614-2357-6. [Online]. Available: <http://www.gcn.us.es/8BWMC/volume/06sudokuMiguel.pdf>.

D. Díaz-Pernil, C. M. Fernández-Márquez, **M. García-Quismondo**, M. A. Gutiérrez-Naranjo, M. A. Martínez-del-Amor, "Solving Sudoku with Membrane Computing", in *2010 IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications BIC-TA*, K. Li, Z. Tang, R. Li, A. Nagar, R. Thamburaj, Eds., vol. I, Changsha, China: IEEE, Inc., pp. 610–615, ISBN: 978-1-4244-6438-8. [Online]. Available: http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=16823.

M. García-Quismondo, M. A. Gutiérrez-Naranjo, D. Ramírez-Martínez, "How Does a P System Sound?", in *Eighth Brainstorming Week on Membrane Computing*, Sevilla, Spain: Fénix Editora, pp. 123–132, ISBN: 978-84-614-2357-6. [Online]. Available: <http://www.gcn.us.es/8BWMC/volume/10music.pdf>.

- 2009 **M. García-Quismondo**, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, A. Riscos-Núñez, "An overview of P-lingua 2.0", in *10th Workshop on Membrane Computing*, Marpapublicidad, pp. 240–264. [Online]. Available: <http://www.gcn.us.es/?q=procwmc10>.

M. García-Quismondo, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M. J. Pérez-Jiménez, "P-Lingua 2.0: New features and first applications", in *7th Brainstorming Week on Membrane Computing*, vol. I, Sevilla, España: Fénix Editora, pp. 141–168, ISBN: 978-84-613-2837-6. [Online]. Available: http://www.gcn.us.es/7BWMC/volume/18_plingua_2_0.pdf.

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M. García-Quismondo, B. M. Henley, I. Pérez-Hurtado, A. Riscos-Núñez, “A first attempt to model notch signalling by means of P systems”, in *10th Workshop on Membrane Computing*, G. Paun, M. J. Pérez-Jiménez, A. Riscos-Núñez, Eds., Curtea de Arges, Rumania: Marpapunlicidad, pp. 265–268. [Online]. Available: <http://www.gcn.us.es/files/265notch.pdf>.

Recognition

Fellowships

- 01/2016 **Postdoctoral Fellowship**, *The Jefferson Project at Lake George*, Troy, NY, USA.
- 01/2016 **Smithsonian Fellow Award**, *Smithsonian Institution*, Washington, DC, USA.
- 10/2015 **Post-Doctoral Fellowship at Rutgers University**, *Rutgers University*. Project: *Modeling epidemiological processes on isolated bird habitats*, New Brunswick, NJ, USA.
- 12/2014 **NVIDIA Inc.**, *NVIDIA CUDA Research Center Distinction awarded to the Research Group on Natural Computing*, Seville, Spain, Advisors: Agustín Riscos-Núñez and Mario J. Pérez-Jiménez.
- 03/2014 **Post-Doctoral Fellowship at the University of Minnesota**, *National Science Foundation*. Project: *Frontiers of Earth System Dynamics*, St. Paul, MN, USA.
- 12/2013 **NVIDIA Inc.**, *NVIDIA CUDA Research Center Distinction awarded to the Research Group on Natural Computing*, Seville, Spain, Advisors: Miguel A. Martínez-del-Amor and Mario J. Pérez-Jiménez.
- 03/2013–02/2014 **Visiting Scholarship at Tufts University**, *Spanish Ministry of Science and Education*, Medford, MA, USA, Advisors: J. Michael Reed and Frances S. Chew.
- 11/2011–12/2011 **Visiting Fellowship at Huazhong University of Science and Technology (HUST)**, *Programme of Foreign Experts from the Chinese Ministry of Education*, Wuhan, China, Advisor: Linqiang Pan.
- 09/2011–11/2011 **Visiting Scholarship at Manchester Metropolitan University (MMU)**, *University of Seville*, Manchester, UK, Advisor: Martyn Amos.

Grants

- 10/2010 **FPU (University Lecturer Training) PhD Student Grant**, *Spanish Ministry of Education and Science*, Madrid, Spain.
- 06/2010 **FPI (University Researcher Training) PhD Student Grant**, *4th Plan Propio de Investigación (Own Research Plan) from the University of Seville*, Seville, Spain.
- 09/2008 **Collaboration Internship**, *Spanish Ministry of Education and Science*, Madrid, Spain.

Prominent Research Projects

Computational analysis of food web processes at Lake George.

Modeling and simulation of the spatio-temporal dynamics of an endangered population of roseate terns in the Northwest Atlantic.

Modeling and simulation of the spatial distribution of fisheries species at Wax Lake Delta.

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Modeling and simulation of the genotypic distribution of butterfly species *Pieris oleracea* in Northeastern America.

Computational analysis of the temporal dynamics of genetic processes in *Arabidopsis thaliana*.

Software Projects

P-Lingua, *A Java-Based Programming Language for Membrane Computing*, <http://www.p-lingua.org/>.

PMCGPU, *Parallel simulators for Membrane Computing on the GPU*, <https://sourceforge.net/projects/pmcgpu/>.

pLinguaPlugin, *A Programming Environment in Eclipse for Membrane Computing*, <http://www.p-lingua.org/wiki/index.php/PLinguaPlugin>.

MeCoSim, *A Java-Based General-Purpose Application to Model, Design, Simulate, Analyze and Verify Different Types of P system Models*, <http://www.p-lingua.org/mecosim>.

MeCoGUI, *A Java-Based Graphical User Interface for Simulation in Membrane Computing*, <http://www.p-lingua.org/wiki/index.php/MeCoGUI>.

Prominent Skills

Scientific Skills

- o Machine Learning, Biostatistics, Automatic Reasoning, Computational Modeling, Parallel Computing, GPU Computing, Computer Architecture, Membrane Computing, Logic Synthesis, Ecological Modeling, Compiler Theory and Implementation, Model Checking, Databases, Electrical Engineering, Digital Signal Processing, Robotics Modeling

Software and Hardware Development Technologies

- o Java, C/C++, CUDA/C++, Python, R, Linux Shell, Fortran, Open MP, MPI, Verilog, Haskell, Lisp, CLIPS, Prolog, Perl, AntLR, JavaCC, Matlab, SQL

Software Tools

- o Eclipse, Visual Studio, Apache Web Server, Apache Subversion, Git, Apache Hadoop, Latex, Icarus Verilog, GTKWave, Cufflinks, FastQC, Bowtie, TopHat, BWA

Web Technologies

- o PHP, JavaScript, jQuery, NodeJS, MeteorJS, MongoDB, Laravel, HTML5, CSS3, Drupal, WordPress

Quality Management

- o ISO 27001, ISO 9001, ISO 166002, ISO 14001, Redmine

Teaching

2012–2013 **University of Seville**, *Artificial Intelligence I*, BEng in Computer Science.

2011–2012 **University of Seville**, *Artificial Intelligence II*, BEng in Computer Science.

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- 2011–2012 **University of Seville**, *Introduction to Knowledge Engineering*, BSc in Statistics.
2010–2011 **University of Seville**, *Master Thesis Advisor*, MSc in Professional Education, Advisees: Eduardo Lobatón–Cebrián and Jesús López–Rodríguez.

Professional Activities

Conference/Workshop Organization

- 2018 **Special Session on Biologically Inspired Parallel and Distributed Computing, Algorithms and Solutions (BICAS 2018)**, *Program Committee Member*, <http://hpcs2018.cisedu.info>, Orléans Val de Loire Technopole - OVLT, Informatique Centre Val de Loire - ICVL and Laboratoire D'Informatique Fondamentale d'Orléans - LIFO. Université d'Orléans, Orléans, France.
- 2009–2013 **Brainstorming Week on Membrane Computing**, *Member of the Organizing Committee*, Higher Technical School of Computer Engineering, University of Seville. Seville, Spain, <http://www.gcn.us.es/?q=workshops>.

Outreach Activities

- 2011–2013 **Scientific Summer Campus Andalucía Tech**, *Support Teacher*, Higher Technical School of Computer Engineering, University of Seville. Seville, Spain, http://www.gcn.us.es/?q=scientific_campus.
- 2011 **First International School on Biomolecular and Biocellular Computing (ISBBC'11)**, *Support Teacher*, University of Osuna. Osuna, Spain, http://www.gcn.us.es/?q=scientific_campus.

Quality Management

- 2011–2013 **Implantation of Quality Management System for ISO 9001, 14001, 166002 and 27001 Standards**, *Member of the Management Team*, <http://www.gcn.us.es>, Research Group on Natural Computing. University of Seville, Seville, Spain.

Reviewer

- 2018 **Lecture Notes in Computer Science**, <https://www.springer.com/gp/computer-science/lncs>.
- 2018 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>.
- 2018 **Theoretical Computer Science**, <https://www.journals.elsevier.com/theoretical-computer-science/>.
- 2017 **Integrated Computer-Aided Engineering**, <https://content.iospress.com/articles/integrated-computer-aided-engineering/ica554>.
- 2017 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>.
- 2016 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>.
- 2014 **Plos One**, <http://www.plosone.org/>.
- 2014 **Neural Network World**, <http://www.nnw.cz/>.

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- 2012 **Neural Computing and Applications**, <http://www.springer.com/computer/ai/journal/521>.
- 2012 **Scientific Research and Essays**, <http://www.academicjournals.org/sre/index.htm>.

Invited Talks

- 2014 **Probabilistic Guarded P systems as a novel modeling framework for population dynamics. *P. oleracea*, a case study**, *Department of Fisheries, Wildlife and Conservation Biology*, University of Minnesota, St. Paul, MN, USA.
- 2013 **Spiking Neural P systems. Applications to regenerative biology**, *Department of Biology*, Tufts University, Medford, MA, USA.
- 2013 **Probabilistic Guarded P systems. A novel modeling framework for population dynamics**, *Department of Biology*, Tufts University, Medford, MA, USA.
- 2011 **Simulation Tools for Membrane Computing**, *School of Electrical Engineering*, Southwest Jiaotong University, Chengdu, Sichuan, China.
- 2011 **Applications of Membrane Computing**, *Department of Systems and Control Engineering*, Huazhong University of Science and Technology, Wuhan, Hubei, China.
- 2011 **P–Lingua: A Programming Language for Membrane Computing**, *Department of Computer Science and Artificial Intelligence*, University of Seville, Seville, Spain. Seminar given to students from the MEng in Logic, Computing and Artificial Intelligence at the University of Seville

Professional Courses Taken

- 2015 **Digital Signal Processing**, *Coursera Inc.*, École polytechnique fédérale de Lausanne, Lausanne, Switzerland.
- 2015 **Agile and Lean. Managing Projects and Businesses from the Future**, *Miríada X*, University Rey Juan Carlos, Madrid, Spain.
- 2015 **VLSI CAD. From Logic to Layout**, *Coursera Inc.*, University of Illinois at Urbana-Champaign, IL, USA.
- 2013 **German for teaching and research**, *Faculty of Physics*, University of Seville, Seville, Spain.
- 2013 **TDD/Test Driven Development from Scratch**, *Higher Technical School of Computer Engineering*, University of Seville. Seville, Spain.
- 2013 **The 7th Program Marco. How to Apply to European Projects. From 7PM to Horizon 2020 and Experiences on 7PM. Case Studies**, *Pavilion of Mexico*, University of Seville. Seville, Spain.
- 2012 **Agile Software Development with Scrum**, *Plain Concepts Inc.*, University of Seville. Seville, Spain.
- 2012 **Latex: Computer-aided Composition of Scientific Texts**, *Department of Differential Equations and Numerical Analysis (EDAN)*, University of Seville. Seville, Spain.

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- 2011 **UNE-EN ISO 27001:2005, UNE-EN ISO 9001:2008, UNE-EN ISO 14001:2004 and UNE-EN:ISO 166002:2006 Norms**, *Prescal Enterprise Group*, University of Seville. Seville, Spain.
- 2011 **Implementation of conflict resolution strategies on teaching tasks**, *Institute of Education Sciences*, University of Seville. Seville, Spain.
- 2011 **Optimization of communication competences on university lecturers**, *Institute of Education Sciences*, University of Seville. Seville, Spain.
- 2011 **Introduction to Molecular Phylogenetic Analysis**, *Centre for Technical Research and Innovation (CITIUS)*, University of Seville. Seville, Spain.
- 2011 **RES Supercomputing and Scientific Seminar of Next Generation Sequencing**, *Barcelona Supercomputing Center*, Andalucía Technological Park. Bioinnovación Building, Málaga, Spain.
- 2011 **Assembling and Annotation of Genomes by using Supercomputing**, *Fundación Centro de Supercomputación de Castilla y León*, Instituto de Empresa, Segovia, Spain.
- 2010 **Information Resources on Informatics**, *University of Seville Library*, University of Seville. Seville, Spain.

Languages

- Spanish Native Level
- English Advanced Level
- 2012 **Test of English as a Foreign Language (TOEFL)**, *Score: 104/120*.
- 2010 **Certificate in Advanced English from University of Cambridge–ESOL (CAE)**, *Level C1 at CEFR scale*.
- 2009 **BSc in English from the Institute of Languages, University of Seville**, *Level C1 at CEFR scale*.
- Romanian Advanced Level
- French Medium Level

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