Luis Martí

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Professional experience

2019–present **Science Director**, *Inria Chile Research Center*, Inria: Institut national recherche en sciences et technologies du numérique, Paris, France / Santiago de Chile, Chile.
Leading research in Chilean Center of Inria, the French National Center of Research in Digital Sciences. Emphasis in AI and ML with applications in industry, ecology, astronomy, etc. https://inria.cl

2018–present **Chief Science Officer**, *Docugami, Inc.*, Kirkland (WA) U.S.A.
Leading the science team on natural language processing, machine learning, deep learning and related directions. Grants with NSF and NASA. https://www.docugami.com

2022–present **Adjunct Professor at the PhD Program on Astrophysics**, *Institute of Astrophysical Studies*, Faculty of Engineering and Science, Universidad Diego Portales, Santiago de Chile, Chile.
https://astronomia.udp.cl/, https://doctorados.udp.cl/academicos/luis-marti/

2017–present **CSO and Founder**, *Brighthean Consulting*, Madrid/Paris/Rio de Janeiro

2015–2018 **Associate Researcher**, *Team Tackling the Underspecified (TAU), formerly* Apprentissage et Optimisation *(TAO)*, Inria: Institut national recherche en sciences et technologies du numérique & Université de Paris-Saclay, Saclay (Paris), Île-de-France, France.
https://www.inria.fr/en/tau

2015–2019 **Professor (tenured)**, *Institute of Computing*, Universidade Federal Fluminense, Rio de Janeiro, Brazil.
- Co-Head of the Group of Research in Intelligence and Optimization (RIO Group).
- Chair of the IEEE CIS Rio de Janeiro Chapter.

2013–2015 **CNPq Young Talent of Science Fellow**, *Laboratory of Adaptive Intelligence and Robotics (LIRA)*, Department of Electrical Engineering, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil.
Competitive funding by National Council for Scientific and Technological Development (CNPq), Ministry of Science and Technology, Brazil.

2012–2015 **Senior Research Fellow**, *Active Documentation and Intelligent Design Laboratory (ADDLabs)*, Institute of Logic, Philosophy and Theory of Science (ILTC) and Universidade Federal Fluminense (UFF), Rio de Janeiro, Brazil.

Jun.–Nov. 2012 **Postdoctoral Research Fellow**, *Group of Artificial Intelligence*, Fakultät für Informatik, Technische Universität Dortmund, Dortmund, Germany.

2012–2013 **Head Scientist**, *Innology Ventures — opinator.com opinion mining app*, Madrid, Spain
https://www.opinator.com

2007–2012 **Assistant Professor (*profesor ayudante*)**, *Department of Informatics*, Universidad Carlos III de Madrid, Madrid, Spain.

2005–2007 **Ph.D. Scholarship**, *Department of Informatics*, Universidad Carlos III de Madrid, Madrid, Spain.

Education

2007–2011 **Ph. D. in Computer Science and Technology**, *Universidad Carlos III de Madrid*, Madrid, Spain

2005–2007 **Master in Computer Science and Technology**, *Universidad Carlos III de Madrid*, Madrid, Spain

2001–2002 **Predoctoral Fellowship**, *Università degli Studi di Udine*, Udine, Italy

1993–1998 **B. Sc. in Computer Science**, *Universidad de La Habana*, Havana, Cuba

Interests

- ▷ artificial intelligence (AI);
- ▷ machine learning (ML);
- ▷ 'System 2' AI;
- ▷ neuro-symbolic 'agentic' reasoning;
- ▷ multi-modal foundation models (LLM);
- ▷ natural language understanding;
- ▷ causality;
- ▷ conformal prediction/underspecification;
- ▷ nature-inspired metaheuristics;
- ▷ evolutionary multi-objective optimization;
- ▷ AI for science;
- ▷ AI for good, policies and governance;
- ▷ human-AI cooperation;
- ▷ physics-informed ML;
- ▷ applications in aerospace, astronomy, climate, energy, finance, logistics, ocean ecology, mining, smart agro, etc.

Awards and other merits

- ▷ IEEE IPRS 2025 Best Poster Paper Award.
- ▷ IBERAMIA 2024 accessit to the Best Paper Award — https://www.iberamia.org/iberamia/iberamia2024/awards/
- ▷ IBERAMIA 2022 accessit to the Best Paper Award — https://www.iberamia.org/iberamia/iberamia2022/
- ▷ CNPq Research Merit Fellowship (Bolsa de Produtividade em Pesquisa – PQ2) (competitive fellowship among all researchers in Brazil).
- ▷ GECCO 2017 best paper award nominee in the EMO track.
- ▷ CNPq Young Talent of Science Fellowship (competitive fellowship for attracting foreign talents to Brazil).
- ▷ UC3M merit-based grant for post-doctoral academic exchanges (for traveling to T.U. Dortmund, Germany).
- ▷ UC3M merit-based grant for pre-doctoral academic exchanges (for traveling to CINVESTAV, Mexico).
- ▷ GECCO 2008 best paper award nominee in the EMO track (see publications).

Journal papers

1. Signor, T., Jofré, P., Lira, H., Vitali, S., **Martí**, **L.**, & Sanchez-Pi, N. (2025). Toward model-free stellar chemical abundances. Potential applications in the search for chemically peculiar stars in large spectroscopic surveys. *Astronomy and astrophysics*, *704*(A279), 16. doi:10.1051/0004-6361/202555376. arXiv: 2511.09733 [astro-ph.SR]
2. Signor, T., Jofré, P., **Martí**, **L.**, & Sanchez-Pi, N. (2024). A baseline on the relation between chemical patterns and the birth stellar cluster. *Astronomy and Astrophysics*, *688*(A165), 15. doi:10.1051/0004-6361/202449938
3. Carrillo, H., de Wolff, T., **Martí**, **L.**, & Sanchez-Pi, N. (2023). Evolutionary multi-objective physics-informed neural networks: The MOPINNs approach. *AI Communications*, 1–13. doi:10.3233/AIC-230073
4. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2022). A Graph Neural Network with Spatio-Temporal Attention for Multi-Sources Time Series Data: An Application to Frost Forecast. *Sensors*, *22*(4). doi:10.3390/s22041486
5. Sánchez-Sáez, P., Lira, H., **Martí**, **L.**, Sanchez-Pi, N., Arredondo, J., Bauer, F. E., … Vergara, J. R. (2021). Searching for changing-state AGNs in massive datasets – I: applying deep learning and anomaly detection techniques to find AGNs with anomalous variability behaviours. *The Astronomical Journal*, *162*(5). doi:10.3847/1538-3881/ac1426
6. Cinalli, D., **Martí**, **L.**, Sanchez-Pi, N., & Bicharra Garcia, A. C. (2020a). Collective intelligence approaches in interactive evolutionary multi-objective optimization. *Logic Journal of the IGPL*, *28*(1), 95–108. doi:10.1093/jigpal/jzz074. eprint: https://academic.oup.com/jigpal/article-pdf/28/1/95/32219693/jzz074.pdf
7. Santana, R., **Martí**, **L.**, & Zhang, M. (2019). GP-based methods for domain adaptation: using brain decoding across subjects as a test-case. *Genetic Programming and Evolvable Machines*, *20*(3). doi:10.1007/s10710-019-09352-6
8. **Martí**, **L.**, Segredo, E., Sanchez-Pi, N., & Hart, E. (2018a). Impact of selection methods on the diversity of many-objective Pareto set approximations. *Procedia Computer Science*, *112*, 844–853. Knowledge-Based and Intelligent Information

& Engineering Systems: Proceedings of the 21st International Conference (KES-2017) 6–8 September 2017, Marseille, France. doi:10.1016/j.procs.2017.08.077
9. **Martí**, **L.**, Segredo, E., Sanchez-Pi, N., & Hart, E. (2018b). Selection methods and diversity preservation in many-objective evolutionary algorithms. *Data Technologies and Applications*, *52*(4), 502–519. doi:10.1108/dta-01-2018-0009
10. Bicharra Garcia, A. C., Vivacqua, A., Sanchez-Pi, N., **Martí**, **L.**, & Molina López, J. M. (2017). Crowd-Based Ambient Assisted Living to Monitor the Elderly's Health Outdoors. *IEEE Software*, *34*(6), 53–57. doi:10.1109/MS.2017.4121217
11. **Martí**, **L.**, Sanchez-Pi, N., Molina López, J. M., & Bicharra Garcia, A. C. (2017). On the Combination of Support Vector Machines and Segmentation Algorithms for Anomaly Detection: A Petroleum Industry Comparative Study. *Journal of Applied Logic*, *24*(Part A), 71–84. doi:10.1016/j.jal.2016.11.015
12. Dias de Mello Jr, H., **Martí**, **L.**, Abs da Cruz, A. V., & Rebuzzi Vellasco, M. M. B. (2016). Evolutionary algorithms and elliptical copulas applied to continuous optimization problems. *Information Sciences*, *369*, 419–440. doi:10.1016/j.ins.2016.07.006
13. **Martí**, **L.**, García, J., Berlanga, A., & Molina López, J. M. (2016a). A Stopping Criterion for Multi-Objective Optimization Evolutionary Algorithms. *Information Sciences*, *367–368*, 700–718. doi:10.1016/j.ins.2016.07.025
14. **Martí**, **L.**, García, J., Berlanga, A., & Molina López, J. M. (2016b). MONEDA: Scalable multi-objective optimization with a neural network-based estimation of distribution algorithm. *Journal of Global Optimization*, *66*(4), 729–768. doi:10.1007/s10898-016-0415-7
15. Sanchez-Pi, N., **Martí**, **L.**, & Bicharra Garcia, A. C. (2016). Improving ontology-based text classification: An occupational health and security application. *Journal of Applied Logic*, *17*, 48–58. doi:10.1016/j.jal.2015.09.008
16. **Martí**, **L.**, Sanchez-Pi, N., Molina López, J. M., & Bicharra Garcia, A. C. (2015). Anomaly Detection Based on Sensor Data in Petroleum Industry Applications. *Sensors*, *15*(2), 2774–2797. doi:10.3390/s150202774
17. Sanchez-Pi, N., **Martí**, **L.**, Molina López, J. M., & Bicharra, A. C. (2015). Contextual Pattern Discovery in Ambient Intelligent Application. *International Journal of Imaging and Robotics*, *15*(4), 165–178.
18. **Martí**, **L.**, García, J., Berlanga, A., & Molina López, J. M. (2013). Multi-Objective Optimization with an Adaptive Resonance Theory-based Estimation of Distribution Algorithm. *Annals of Mathematics and Artificial Intelligence*, *68*(4), 247–273. doi:10.1007/s10472-012-9303-0
19. **Martí**, **L.**, García, J., Berlanga, A., Coello Coello, C. A., & Molina López, J. M. (2011). MB-GNG: Addressing Drawbacks in Multi-Objective Optimization Estimation of Distribution Algorithms. *Operations Research Letters*, *39*(2), 150–154. doi:10.1016/j.orl.2011.01.002

Conference papers (peer-reviewed)

1. Karmim, Y., Pino, R., Contreras, H., Lira, H., Cifuentes, S., Escoffier, S., … Barrière, V. (2026, March). Leveraging Wikidata for Geographically Informed Sociocultural Bias Dataset Creation: Application to Latin America. In P. Chen, V. Zouhar, H. Hu, S. Khanuja, W. Zhu, B. Haddow, … S. Hooker (Eds.), *Proceedings of the Workshop on Multilingual Multicultural Evaluation of the 19th Conference of the European Chapter of the Association for Computational Linguistics (EACL'2026)*, Rabbat, Morocco. HAL: hal-05510068. url: https://inria.hal.science/hal-05510068
2. Chacra, E., Escapil-Inchauspé, P., **Martí**, **L.**, & Sanchez-Pi, N. (2025). Physics-Informed Neural Networks for Coupled Fluid Dynamics and Nutrient Transport: A Comparative Study of Causal Training Methods. In C. Astudillo, K. Suchan, & S. A. Velastin (Eds.), *IEEE 15th International Conference on Pattern Recognition Systems (ICPRS)* (pp. 1–7). doi:10.1109/ICPRS66293.2025.11302850
3. Lira, H., de Wolff, T., **Martí**, **L.**, & Sanchez-Pi, N. (2025). FairTrees: A Deep Learning Approach for Identifying Deforestation on Satellite Images. In *Advances in Artificial Intelligence — IBERAMIA 2024: 18th Ibero-American Conference on AI* (pp. 173–184). doi:10.1007/978-3-031-80366-6_15
4. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2025a). A Hierarchical Multiview Symbolic Regression Method for Decoding Oceanic Metabolism. In *Proceedings of the Genetic and Evolutionary Computation Conference Companion* (pp. 2539–2547). doi:10.1145/3712255.3734346
5. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2025b). Spanish-Mapudungun Translation using Transfer Learning for Low-resource languages. In C. Astudillo, K. Suchan, & S. A. Velastin (Eds.), *IEEE 15th International Conference on Pattern Recognition Systems (ICPRS)* (pp. 1–7). doi:10.1109/ICPRS66293.2025.11302844
6. Valenzuela, L., Reyes, C., **Martí**, **L.**, & Sanchez-Pi, N. (2025). A Comparative Analysis of Language Model Embeddings from Genes and Proteins involved in the Biological Carbon Pump. In C. Astudillo, K. Suchan, & S. A. Velastin (Eds.), *IEEE 15th International Conference on Pattern Recognition Systems (ICPRS)* (pp. 1–7). doi:10.1109/ICPRS66293.2025.11302855

7. Vinayagame, V., Senay, G., & **Martí**, **L.** (2025). MATATA: Weakly Supervised End-to-End MAthematical Tool-Augmented Reasoning for Tabular Applications. In *Document Analysis and Recognition – ICDAR 2025: 19th International Conference, Wuhan, China, September 16–21, 2025, Proceedings, Part I* (pp. 428–467). doi:10.1007/978-3-032-04614-7_24
8. Callejas, S., Lira, H., Berry, A., **Martí**, **L.**, & Sanchez-Pi, N. (2024a, November). Capturing the Essence of Plankton:A Gradient-Weighted Class Activation Mapping Analysis. In L. Correia, A. Rosá, & F. Garijo (Eds.), *Advances in Artificial Intelligence — IBERAMIA 2024* (pp. 74–86). doi:10.1007/978-3-031-80366-6_7
9. Callejas, S., Lira, H., Berry, A., **Martí**, **L.**, & Sanchez-Pi, N. (2024b, October). No Plankton Left Behind: Preliminary results on massive plankton image recognition. In G. Guerrero, S. Martín, E. Meneses, C. J. Barrios H, C. Osthoff, & J. M. Monsalve Diaz (Eds.), *High Performance Computing: 11th Latin American High Performance Computing Conference (CARLA 2024)*.
10. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2024). Spanish-Mapudungun Translation using Transfer Learning for Low-resource languages (summary). In L. Voisin, A. Monares, D. Dulic, I. Ñancupil, V. Maliqueo, C. Laurie, … D. Sáez Hueichapan (Eds.), *Congreso Tecnológico Indígena*, Santiago de Chile, Chile.
11. Vinayagame, V., Senay, G., & **Martí**, **L.** (2024). Tool-Augmented Compositional Reasoning LLMs with Weak Supervision: A Scalable Approach to Reduce Human Efforts in Agent Customization. In *BayLearn 2024: Bay Area Machine Learning Symposimum*, San Francisco, CA, USA.
12. de Moraes, R. F., Evangelista, R. d. S., Pereira, A. L. d. S., Toledo, Y. P., Fernandes, L. A. F., & **Martí**, **L.** (2023, November). Heuristics to reduce linear combinations of activation functions to improve image classification. In *2023 36th SIBGRAPI Conference on Graphics, Patterns and Images (SIBGRAPI)* (pp. 169–174). doi:10.1109/SIBGRAPI59091.2023.10347043
13. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2023, December). Enhancing Writing Skills of Chilean Adolescents: Assisted Story Creation with LLMs. In *NeurIPS'23 Workshop Generative AI for Education (GAIED)*, New Orelans, United States. url: https://inria.hal.science/hal-04395801
14. Marinho, W., Clua, E. W., **Martí**, **L.**, & Marinho, K. (2023). Predicting Item Response Theory Parameters Using Question Statements Texts. In *LAK23: 13th International Learning Analytics and Knowledge Conference* (pp. 1–10). doi:10.1145/3576050.3576139
15. Salgado Pereira, C., Mota Dias, D., **Martí**, **L.**, & Vellasco, M. M. B. R. (2023). A Multi-Objective Decomposition Optimization Method for Refinery Crude Oil Scheduling through Genetic Programming. In *Proceedings of the Companion Conference on Genetic and Evolutionary Computation* (pp. 1972–1980). doi:10.1145/3583133.3596313
16. Vasconcellos, E. C., Sampaio, R. M., Araújo, A. P. D., Gonzales Clua, E. W., Preux, P., Guerra, R., … Sanchez-Pi, N. (2023, December). Reinforcement-learning robotic sailboats: Simulator and preliminary results. In *NeurIPS 2023 Workshop on Robot Learning Workshop: Pretraining, Fine-Tuning, and Generalization with Large Scale Models*, New Orleans, United States. url: https://inria.hal.science/hal-04395990
17. Carrillo, H., de Wolff, T., **Martí**, **L.**, & Sanchez-Pi, N. (2022, July). Towards Optimally Weighted Physics-Informed Neural Networks in Ocean Modelling. In *Workshop AI: Modeling Oceans and Climate Change (AIMOCC 2022) of the 31st International Joint Conference on Artificial Intelligence and the 25th European Conference on Artificial Intelligence (IJCAI-ECAI 2022)*, Vienna, Austria.
18. de Wolff, T., Carrillo, H., **Martí**, **L.**, & Sanchez-Pi, N. (2022). Optimal Architecture Discovery for Physics-Informed Neural Networks. In A. C. Bicharra Garcia, M. Ferro, & J. C. Rodríguez Ribón (Eds.), *Advances in Artificial Intelligence — IBERAMIA 2022* (pp. 77–88). doi:10.1007/978-3-031-22419-5_7
19. de Wolff, T., Carrillo Lincopi, H., Sanchez-Pi, N., & **Martí**, **L.** (2022, July). MOPINNs: An Evolutionary Multi-Objective Approach to Physics-Informed Neural Networks. In *Proceedings of The Genetic and Evolutionary Computation Conference 2022 (GECCO '22)*. doi:10.1145/3520304.3529071
20. de Moraes, R. F., Evangelista, R. d. S., Fernandes, L. A. F., & **Martí**, **L.** (2021, October). GCOOD: A Generic Coupled Out-of-Distribution Detector for Robust Classification. In *2021 34th SIBGRAPI Conference on Graphics, Patterns and Images (SIBGRAPI)* (pp. 409–416). doi:10.1109/SIBGRAPI54419.2021.00062
21. de Wolff, T., Carrillo, H., **Martí**, **L.**, & Sanchez-Pi, N. (2021a, May). Assessing Physics Informed Neural Networks in Ocean Modelling and Climate Change Applications. In N. Sanchez-Pi & **L. Martí** (Eds.), *AI: Modeling Oceans and Climate Change Workshop at ICLR 2021*, Santiago (Virtual), Chile. url: https://hal.inria.fr/hal-03262684
22. Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2021, May). Frost forecasting model using graph neural networks with spatio-temporal attention. In N. Sanchez-Pi & **L. Martí** (Eds.), *AI: Modeling Oceans and Climate Change Workshop at ICLR 2021*, Santiago, Chile. url: https://hal.inria.fr/hal-03259658

23. Muñoz, A., **Martí**, **L.**, & Sanchez-Pi, N. (2021). Data Governance, a Knowledge Model Through Ontologies. In R. Valencia-García, M. Bucaram-Leverone, J. Del Cioppo-Morstadt, N. Vera-Lucio, & E. Jácome-Murillo (Eds.), *Technologies and Innovation* (pp. 18–32). doi:10.1007/978-3-030-88262-4_2
24. Palma, R., **Martí**, **L.**, & Sanchez-Pi, N. (2021, May). Predicting Mining Industry Accidents with a Multitask Learning Approach. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 35, pp. 15370–15376). url: https://ojs.aaai.org/index.php/AAAI/article/view/17805
25. Sánchez-Sáez, P., Lira, H., **Martí**, **L.**, & Sanchez-Pi, N. (2021, September). Anomaly detection for real-time identification of changing-state AGNs in massive datasets. In *Space and AI 2021 workshop at European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PDKK 2021)*, Bilbao, Spain.
26. Cinalli, D., **Martí**, **L.**, Sanchez-Pi, N., & Bicharra Garcia, A. C. (2020b). Extending Collective Intelligence Evolutionary Algorithms: A Facility Location Problem Application. In *Proceedings of the 2020 IEEE Congress on Evolutionary Computation* (pp. 1–8). doi:10.1109/CEC48606.2020.9185523
27. Sanchez-Pi, N., **Martí**, **L.**, Abreu, A., Bernard, O., de Vargas, C., Eveillard, D., … Sebag, M. (2020, December). Artificial Intelligence, Machine Learning and Modeling for Understanding the Oceans and Climate Change. In D. Dao, E. Sherwin, P. Donti, L. Kaack, L. Kuntz, Y. Yusuf, … Y. Bengio (Eds.), *Tackling Climate Change with Machine Learning workshop at NeurIPS 2020*. url: https://www.climatechange.ai/papers/neurips2020/93
28. Ferreira de Moraes, R., Villela da Silva, A., Satoru Ochi, L., & **Martí**, **L.** (2018, July). Implementation of a RVND, VNS, ILS heuristic for the Traveling Car Renter Problem. In *Proceedings of the 2018 IEEE Congress on Evolutionary Computation (IEEE CEC 2018) part of the 2018 IEEE World Congress on Computational Intelligence (IEEE WCCI 2018)* (pp. 1–8). doi:10.1109/CEC.2018.8477777
29. Guerrero, J. L., **Martí**, **L.**, Sanchez-Pi, N., Berlanga, A., & Molina López, J. M. (2018). Multiobjective Evolutionary Polygonal Approximation for Identifying Crude Oil Reservoirs. In *Proceedings of the Genetic and Evolutionary Computation Conference Companion* (pp. 1805–1812). doi:10.1145/3205651.3208290
30. Marinho, W., **Martí**, **L.**, & Sanchez-Pi, N. (2018, July). A Compact Encoding for Efficient Character-level Deep Text Classification. In *Proceedings of the 2018 IEEE 2018 International Joint Conference on Neural Networks part of the 2018 IEEE World Congress on Computational Intelligence (IEEE WCCI 2018)* (pp. 3726–3733). doi:10.1109/IJCNN.2018.8489139
31. Pereira, C. S., Dias, D. M., Vellasco, M. M. B. R., Viana, F. H. F., & **Martí**, **L.** (2018). Crude Oil Refinery Scheduling: Addressing a Real-world Multiobjective Problem Through Genetic Programming and Dominance-based Approaches. In *Proceedings of the Genetic and Evolutionary Computation Conference Companion* (pp. 1821–1828). doi:10.1145/3205651.3208291
32. Sanchez-Pi, N., **Martí**, **L.**, Bustamante, Á., & Molina López, J. M. (2018). How Machine Learning Could Detect Anomalies on thinger.io Platform? In J. Bajo, J. M. Corchado, E. Navarro, E. Osaba, S. Giroux, A. J. M. Castro, … R. Fuentes (Eds.), *Highlights of Practical Applications of Complex Multi-Agent Systems - International Workshops of PAAMS 2018* (Vol. 431, pp. 100–110). doi:10.1007/978-3-319-94779-2_23
33. Sanchez-Pi, N., **Martí**, **L.**, & Molina López, J. M. (2018). Applying VorEAl for IoT Intrusion Detection. In F. Martínez-álvarez, A. Troncoso, H. Quintián, & E. Corchado (Eds.), *13th International Conference Hybrid Artificial Intelligent Systems (HAIS 2018)* (pp. 363–374). doi:10.1007/978-3-319-92639-1_30
34. **Martí**, **L.**, Fansi-Tchango, A., Navarro, L., & Schoenauer, M. (2017). Progressively Adding Objectives: A Case Study in Anomaly Detection. In *Proceedings of the 2017 Annual Conference on Genetic and Evolutionary Computation (GECCO'17)* (pp. 1–8). doi:10.1145/3071178.3071333
35. Alemán, J. J., Sanchez-Pi, N., **Martí**, **L.**, Molina López, J. M., & Bicharra Garcia, A. C. (2016, July). Gamification and Information Fusion for Rehabilitation: An Ambient Assisted Living Case Study. In J. Zhou & G. Salvendy (Eds.), *Human Aspects of IT for the Aged Population. Healthy and Active Aging - Second International Conference, ITAP 2016, part of Proceedings 2016 HCI International Conference (Proceedings Part II)* (pp. 16–25). doi:10.1007/978-3-319-39949-2_2
36. Cinalli, D., **Martí**, **L.**, Sanchez-Pi, N., & Bicharra Garcia, A. C. (2016a). Bio-Inspired Algorithms and Preferences for Multiobjective Problems. In F. Martínez-Álvarez, A. Troncoso, H. Quintián, & E. Corchado (Eds.), *11th International Conference Hybrid Artificial Intelligent Systems (HAIS 2016)* (pp. 238–249). doi:10.1007/978-3-319-32034-2_20
37. Cinalli, D., **Martí**, **L.**, Sanchez-Pi, N., & Bicharra Garcia, A. C. (2016b). Preference-based Interactive MOEA on Continuous Problem of Facility Location. In *Workshop de Pesquisa e Desenvolvimento em Inteligência Artificial, Inteligência Collectiva e Ciência de Dados*. url: http://www.addlabs.uff.br/workpedia2016/anais-do-workpedia-2016/
38. Jiménez Alemán, J., Sanchez-Pi, N., **Martí**, **L.**, Molina López, J. M., & Bicharra Garcia, A. C. (2016). A Data Fusion Model for Ambient Assisted Living. In J. Bajo, J. M. Escalona, S. Giroux, P. Hoffa-Dąbrowska, V. Julián, P. Novais, … R. Azambuja-

Silveira (Eds.), *Highlights of Practical Applications of Scalable Multi-Agent Systems. The PAAMS Collection: International Workshops of PAAMS 2016 Proceedings* (pp. 301–312). doi:10.1007/978-3-319-39387-2_25

39. Marinho, W., & **Martí**, **L.** (2016). Review of Student Proficiency Modeling Techniques for use in Intelligent Tutoring Systems. In *Workshop de Pesquisa e Desenvolvimento em Inteligêcia Artificial, Inteligêcia Collectiva e Ciêcia de Dados*. url: http://www.addlabs.uff.br/workpedia2016/anais-do-workpedia-2016/
40. **Martí**, **L.**, Dias de Mello Jr, H., Sanchez-Pi, N., & Rebuzzi Vellasco, M. M. B. (2016, July). SMS-EDA-MEC: Extending Copula-based EDAs to Multi-Objective Optimization. In *Proceedings of the 2016 IEEE Congress on Evolutionary Computation (IEEE CEC 2016) part of the 2016 IEEE World Congress on Computational Intelligence (IEEE WCCI 2016)* (pp. 3726–3733). doi:10.1109/CEC.2016.7744261
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Keynotes, invited talks and other activities

1. Sanchez-Pi, N. (2023, March). AI, the Ocean and Climate Change. In *KHIPU: Latin American Meeting on Artificial Intelligence*. Keynote, Universidad de La República, Uruguay. url: https://khipu.ai/khipu2023/
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Academic research projects

04.2024–12.2026 **HUEMUL: Human+AI Ensembled Machine Translation for Underrepresented Languages**, *Inria / Franco-Chilean Binational Center for AI*, https://www.inria.cl
co-PI

11.2023–12.2025 **AI and modelling for urban floods / Multiscale flood simulations using artificial neural networks**, *Inria / Franco-Chilean Binational Center for AI*, https://www.inria.cl
co-PI

11.2025–11.2027 **LLACA: LLM Assimilation of Cultural Aspects – Knowledge-Graph-Augmented Large Language Model for Cultural References**, *Inria / Franco-Chilean Binational Center for AI*, https://www.inria.cl
co-PI

03.2022–03.2026 **AI-Powered Modeling of Stellar Atmospheres**, *Inria / Franco-Chilean Binational Center for AI / Institute of Astrophysical Studies, Faculty of Engineering and Science, Universidad Diego Portales*, https://www.inria.cl
co-PI

08.2025–09.2026 **Compression of Transformers Self-Attention Matrices using Algebraic Methods**, *Inria / Franco-Chilean Binational Center for AI*, https://www.inria.cl
co-PI

01.2025–12.2026 **Transformer-based symbolic regression methods for discovery of ordinary differential equations**, *Inria / Franco-Chilean Binational Center for AI / Université Marie et Louis Pasteur*, https://www.inria.cl
co-PI

11.2020–12.2026 **CIEn - Collaboration Inria Environment**, *Inria / Franco-Chilean Binational Center for AI*, https://www.inria.cl
co-PI

01.2025–12.2027 **Art'In Blue: Artificial Intelligence to understand and tame microbial ecosystems**, *Inria / Franco-Chilean Binational Center for AI / Pontificia Universidad Católica de Valparaíso/ Modela CFD*, https://www.inria.cl

09.2021–09.2024 **CACTUS: Concepts of Aerial Vehicles in the City: Transportation, Urban Planning and Security**, *Universidad Politécnica de Madrid / Universidad Carlos III de Madrid / Inria / Franco-Chilean Binational Center for AI*, PID2020-118249RB-C21, funded by MCIN/AEI/10.13039/501100011033/

11.2020–12.2025 **Stargaze: ML and XAI for Understanding Astronomical Observations**, *Inria / Franco-Chilean Binational Center for AI / European Southern Observatory (ESO) / ALERCE LSST Broker*, https://www.inria.cl
co-PI

09.2019–05.2024 **Repositorios de información interoperables para la extracción de datos en el sector sanitario**, *Inria / Franco-Chilean Binational Center for AI / Centro Nacional en Sistemas de Información en Salud (CENS) / Ingeniería y Servicios Informáticos Peña Medina (Chile) / Servicio de Salud Valparaíso - San Antonio Universidad Técnica Federico Santa María (UTFSM)* , https://www.inria.cl

2020–2026 **OcéanIA: Artificial Intelligence, Machine Learning and Modeling for Understanding the Oceans and Climate Change**, *Inria Challenge 14500 (Inria)*, https://oceania.inria.cl/
co-PI

2020–2023 **GreenAI: Towards an ecologically viable machine learning**, *CLIMAT AMSUD Regional Cooperation (ANID and INRIA)*, http://greenai.inria.fr

2020–2023 **E-MISTRAL: An Environmental Monitoring and Inspection Sailboat via Transfer, Reinforcement and Autonomous Learning**, *STIC AMSUD Regional Cooperation (ANID and INRIA)*
Principal Investigator (PI) and coordinator

2019–2022 **FrostForecast: IoT and Machine Learning for Frost Prediction in Cherries Field and Vineyards**, *Crea y Valida (CORFO)* , https://www.inria.cl/es/frost-forecast
co-PI

2019–2020 **Project Test-GreenAI: Towards an ecologically viable machine learning**, *CLIMAT AMSUD (French Regional Cooperation)* , http://greenai.inria.fr
co-PI

2018–2021 **Segurança e Privacidade para IoT: Modelos Inteligentes Bio-Inspirados (Security and Privacy in IoT: Bio-inspired Intelligent Models)**, *Call Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ) No 03/2017 — PROGRAMA "JOVEM CIENTISTA DO NOSSO ESTADO — 2017"*, Young Scientist Fellowship

2017–2020 **Interagindo com o Futuro: Desenvolvimento de Novos Modelos Inteligentes baseados em IoT e AmI (Interacting with the Future: Developing New Intelligent Models based on IoT and AmI)**, *25/2013*, Prociência Research Project Fellowship, Universidade do Estado do Rio de Janeiro
co-PI

2017–2020 **Modelos de Fusão de Dados para Ambient Assisted Living (Data fusion models for ambient assisted living)**, *430082/2016-9*, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

2016–2018 **Otimização Multi-objetivo com Algoritmos Evolucionários: Novas Abordagens e Aplicações (Multi-Objective Optimization with Evolutionary Algorithms: New Approaches and Applications)**, APQ1 – FAPERJ, Rio de Janeiro State University and Universidade Federal Fluminense
Principal Investigator

2015–2016 **Context models for data fusion in the ambient intelligence domain**, INST – FAPERJ, Rio de Janeiro State University and Universidade Federal Fluminense
Modelos de Contexto para Fusão de Datos em Dominios de Inteligencia Ambiental.

2015–2016 **Ambient assisted living models for assisting elderly people in Brazil**, APQ1 – FAPERJ, Rio de Janeiro State University and Universidade Federal Fluminense
Modelos de Ambient Assisted Living para Assistencia a Idosos no Brasil

2014–2015 **Addressing Current Challenges in Evolutionary Multi-Objective Optimization**, German Research Foundation (DFG), PUC-Rio, TU Dortmund and University of Münster

2014–2017 **Research on Ambient Intelligence**, National Council for Scientific and Technological Development (CNPq) — Science without Borders Program Special Visiting Researcher, Universidade Federal Fluminense

2013–2016 **InnEMO**, *Innovation in Evolutionary Multi-Objective Optimization: Novel Approaches and Applications*, 407851/2012-7, National Council for Scientific and Technological Development (CNPq) — Science without Borders Young Talents of Science Attraction Program
Principal Investigator

Industry R& D projects

2024–2030 **Vendimia 5.0: human-machine planning to optimize grape harvest decisions and winemaking operations**, *Center of Research and Innovation of the Concha y Toro Winery and Inria*
co-PI

2020–2024 **L.O.V.E: LSST Operators Visualization Environment**, *Vera C. Rubin Observatory (AURA and NSF)*, https://www.inria.cl/es/lsst-large-synoptic-survey-telescope

2022–2023 **Ficzine: Assisted writing for short stories**, *Fundación Ciudad Literaria, forEach, Inria*
co-PI

2022–2023 **FairTrees: Satellite-based Deforestation Assessment**, *CLAC Fair Trade, CEPAL (United Nations), Inria*
co-PI

2016–2019 **ADDCement**, *Applying deep neural networks for analyzing the quality of petroleum well casings*, ADDLabs (UFF) and Petrobras

2015–2018 **ELUCID**, *Electronic Local but Universal Computer Intrusion Detection System*, funded by BPI France, INRIA/Saclay (Université Paris/Saclay) and ThereSIS Lab (Thales Communications & Security)
Putting forward novel bio-inspired approaches for real-time compututer netowrk intrusion detection.

2014–2017 **ADDCont**, *Data mining for optimization of the outsourcing process in large-scale engineering projects to increase reliability and avoid over-litigation*, ADDLabs (UFF) and Petrobras

2012–2016 **ADD SUB III**, *multi-objective optimization and geospatial reasoning decision support tool for the design of offshore petroleum extraction fields*, ADDLabs (UFF) and Petrobras

2012–2014 **ADD SMS**, *applying data mining and optimization to discover non-evident causes of petroleum industry accidents*, ADDLabs (UFF) and Petrobras

2012–2014 **ADD CIMTBM**, *adaptive supervision, visualization and fault forecasting of oil platform turbomachines*, 6000.0026842.06.2, ADDLabs (UFF) and Petrobras

2012–2014 **Adaptable fusion based on context: Advanced systems for surveillance, air traffic control and navigation**, 2012/00092/001, Universidad Carlos III de Madrid and Spanish Ministry of Science and Innovation

2012 **serMEDIABLE**, *electronic service for accesible mediation*, Universidad Carlos III de Madrid
serMEDIABLE: Puesta en Marcha de un Servicio Electrónico de MEDIAción AccesiBLE.

2012 **SOPE**, *service for orientation and planning for investors*, Universidad Carlos III de Madrid
SOPE: Servicio de Orientación y Planificación del Emprendedor.

2012–2013 **Engineering, configuration and adaptation of the Jasper suite for DMSC/DSN**, Universidad Carlos III de Madrid
Ingeniería, configuración y adaptación de la suite Jasper para la puesta en marcha del DMSC/DSN.

2012–2013 **Design and implementation of a multisensor data fusion system**, Universidad Carlos III de Madrid
Design and implementation of a multisensor data fusion process.

2012–2013 **www.opinator.com**, *A multi-channel customer opinion gathering and mining web platform*, Innology Ventures S.L.

2011–2013 **SIGINT data fusion process design and implementation**, Universidad Carlos III de Madrid
Design and implementation of a data fusion process for signal intelligence.

2011–2012 **DONDE**, *innovative location and intelligent video processing platform*, Spain national level coordinated research project: Ministerio de Industria, Turismo y Comercio, Universidad Carlos III de Madrid

2011–2012 **ATLANTIDA**, *applying state of the art technology in unmanned aerial aircraft and air traffic management development*, Spain national level coordinated research project, Boeing R&D and Universidad Carlos III de Madrid

2012 **Knowledge management for the improvement of the administrative and management processes of the Spanish university system**, 2012/00116/001, Universidad Carlos III de Madrid and Spanish Ministry of Education and Science

2010–2013 **CONTEXTS**, *concepts and technologies for the development of contextual services*, S2009/TIC–1485, Universidad Carlos III de Madrid

2009–2011 **Surveillance, navigation and detection technologies: Conflict resolution for the future European air traffic management systems — CNS/ATM**, TEC2008–06732–C02–02, Universidad Carlos III de Madrid

2009–2011 **Scoring actions in team-based sport games using artificial intelligence**, *Spain national level coordinated research project*, Universidad Carlos III de Madrid
Evaluación de las acciones de juego en deportes de equipo por medio de inteligencia artificial.

2009–2011 **ENERGOS**, *technologies for the automated and intelligent management of future energy distribution networks*, Spain national level coordinated research project, Unión Fenosa Distribución S.A. and Universidad Carlos III de Madrid

2009 **ANADISC**, *analysis of a electronic sensing and decision system for equality, non-discrimination and universal access for persons with disabilities*, Universidad Carlos III de Madrid
ANADISC: Análisis de un sistema electrónico de mediación y arbitraje sobre igualdad, no discriminación y accesibilidad universal de las personas con discapacidad.

2009 **Future wireless communication technologies for railway transportation safety**, Spain national level coordinated research project, Universidad Carlos III de Madrid
Estudio del futuro de las tecnologías inalámbricas de comunicaciones en la seguridad del tráfico ferroviario.

2009–2011 **Evaluation of game actions and performance in team sports using artificial intelligence**, Spain national level coordinated research project, Instituto de Salud Carlos III and Universidad Carlos III de Madrid

2008–2011 **INTEGRA**, *research on technologies for the management of migration*, Spain national level coordinated research project, Universidad Carlos III de Madrid
INTEGRA: Investigación en Tecnologías para la Gestión de la Migración.

2008–2011 **SEDUCE**, *system for the detection of explosives in infrastructures and public facilities*, Spain national level coordinated research project, Universidad Carlos III de Madrid
SEDUCE: Sistemas para la Detección de Explosivos en Infraestructuras y Centros Públicos.

2008–2011 **LOCATIL**, *sensor fusion and reasoning techniques for services based in location and context: An application to ambient-assisted living*, Spain national level coordinated research project CICYT — TIN2008-06742-C02-02/TSI, Universidad Carlos III de Madrid

2008 **Mining air traffic data using artificial intelligence methods**, *part of project "Methods for analysis and exploitation of air traffic data and simulation II"*, Spain national level coordinated research project, AENA and Universidad Carlos III de Madrid
Data Mining sobre Datos de Tráfico Aéreo Mediante Técnicas de Inteligencia Artificial, en el marco del proyecto "Métodos de análisis y explotación de datos de tráfico aéreo y simulación II".

2007–2010 **TIMI**, *intelligent multimodal goods transportation*, Spain national level coordinated research project Programa CENIT (iniciativa Ingenio 2010), Universidad Carlos III de Madrid

2007–2010 **Proyecto de I+D+i para el desarrollo de un sistema avanzado de localización basado en SUPL y algoritmos que minimicen el consumo de servicios de red**, Spain national level coordinated research project Ministro de Industria, Turismo y Comercio (FIT-330210-2007-13), Universidad Carlos III de Madrid

2007–2010 **INFUSA**, *integration of methods of data fusion and interpretation for the development of services based on the estimation of activities in intelligent spaces*, Spain national level coordinated research project CICYT (TIN2011-28620-C02-01), Universidad Carlos III de Madrid

2007 **Analysis of the academic results in the Universidad Carlos III de Madrid: Proposing criteria and measures for dealing with student underperformance**, Spain national level coordinated research project: Ministerio de Educación y Ciencia (EA2007-0036), Universidad Carlos III de Madrid

2007 **DISIS-MA**, *design of security systems based on multi-agent architectures*, Spain national level coordinated research project: Comunidad de Madrid – 2007/04094/001, Universidad Carlos III de Madrid

2007 **AENA-EUROCONTROL air traffic planning tool (machine learning module)**, funded by Spanish and European air traffic authorities, Universidad Carlos III de Madrid

2006–2009 **SINPROB**, *intelligent systems applied to the protection of ships and port operations*, funded by Ministerio de Fomento (Spanish Ministry of Industries) — Ref. T10/2006, Universidad Carlos III de Madrid

2006–2007 **AUTOPIA**, *towards the autonomy people with disabilities and dependent elders by means of Ambient Intelligence*, funded by Ministerio de Trabajo y Asuntos Sociales (Spanish Ministry of Work and Social Affairs) — IMSERSO 31/06, Universidad Carlos III de Madrid

2006-2010 **MADRINET**, *multidisciplinary Advanced research in user-centric wireless network enabling technologies*, Universidad Carlos III de Madrid

2006 **Datman Paper**, *a web-based journal reader with an augmented information supplier and its corresponding kiosk web application*, Mindfields S.L

2005–2008 **COLOCAME: Integration of communication, localization and intelligent service provision: Architecture for emergent mobile services**, *Spain national level coordinated research project*, CICYT — TSI2005-07344-C02-02, Universidad Carlos III de Madrid

2005 **Web search query contextualization**, *automatic contextualization and results ranking of web searcher queries using a generalist ontology*, Universidad Carlos III de Madrid and Mindfields S.L.
Was integrated in Telefonica's web search engine http://www.noxtrum.com (noxtrum has been shut down).

2003 **Prediction of the spatial structure of biological sequences**, *prediction of secondary and tertiary protein structure*, Universidad de La Habana and Università degli Studi di Udine

2002 **Time-series prediction of financial data with long prediction horizon**, *prediction of credit card use and generation of users profile*, Universidad de La Habana, Zentre für Technomathematik of the University of Bremen and MasterCard Europe

1999 **National computer network backbone supervision tool**, *large high-speed data communication networks statistics extraction, simulation and behavior prediction*, Universidad de La Habana and the Cuban Telecommunications Company (ETECSA)

1999 **Financial time-series prediction with neural networks**, *an analysis tool for financial time-series prediction*, Universidad de La Habana and the Cuban Ministry of Foreign Commerce

Research exchange

Postdoctoral

Dec. 2011 – Feb. 2012 **Department of Computational Statistics**, *Faculty of Statistics*, Technische Universität Dortmund, Dortmund, Germany

Predoctoral

Oct. 2009 **Group of Evolutionary Computing and Numerical Optimization**, *Department of Computer Science*, Centro de Investigación y de Estudios Avanzados (CINVESTAV) of the Instituto Politécnico Nacional (IPN), Mexico D.F., Mexico

Teaching

Universidad Diego Portales

PhD on Astrophysics, Institute of Astrophysical Studies

▷ Artificial Intelligence and Machine Learning for Astrophysics

Universidade Federal Flumenense

postgraduate

▷ Machine Learning

undergraduate

Computer Science

▷ Artificial Intelligence

▷ Introduction to Programming

▷ Data Structures and Algorithms

Pontifícia Universidade Católica do Rio de Janeiro

postgraduate

PhD Program on Electrical Engineering

▷ Advanced Evolutionary and Stochastic Algorithms

Universidad Carlos III de Madrid

postgraduate

Interuniversity Master in Intelligence Analyst (UC3M and URJC; http://www.masteranalistadeinteligencia.com/)

▷ Data Mining and Information Extraction

Master in Libraries and Digital Information Services

▷ Knowledge Management

Master in Information and Documentation

▷ Knowledge Management

undergraduate

Computer Engineering

▷ Uncertainty Reasoning

▷ Artificial Intelligence in Organizations

▷ Data Mining

▷ Knowledge Engineering

▷ Theory of Computer Science I and II

Tourism

▷ Computer Science Applied to the Touristic Sector

Business Management and Administration

▷ Management Computer Science

Universidad de La Habana

undergraduate

Computer Science

▷ Introduction to Logic

▷ Simulation and Modeling

▷ Computer Networks

▷ Artificial Intelligence

Student supervision

Universidade Federal Fluminense

▷ Marinho, Wemerson (2024) Predicting Item Response Theory Parameters Using Question Statements Texts. **PhD Thesis**.

▷ Ferreira de Moraes, Rogério (2023) Deep reinforcement learning for natural language processing. **PhD Thesis**.

▷ Marinho, Wemerson (2018) Word101 - A Compact Encoding of Words using Character-Level Information applied to Convolutional Neural Network Text Classification. **Master thesis**.

▷ Cinalli, Daniel (March 2017) Multiobjective optimization for data pre-processing and feature selection. **PhD thesis**. http://lattes.cnpq.br/3485118556641412

▷ Boden, Lucas (2017) Applying deep learning for self-driving cars. **BSc. thesis**.

Pontifícia Universidade Católica do Rio de Janeiro

▷ Revelo Apraez, Cesar David (July 2016) Abordagem Híbrida Neuro-Evolucinária para Ponderação Dinâmica de Previsores — *A hybrid neuro-evolutionary approach for the dynamical weighting of predictors*. **Master thesis**.

Universidad Carlos III de Madrid

▷ Bona, Ignacio (2009) Programación genética aplicada a la resolución del cubo de Rubik. **Proyecto de Fin de Carrera (equiv. BSc thesis)** http://hdl.handle.net/10016/7645.

▷ Beloki, Julen (2009) GrammaTEX: Corrector gramatical para documentos LATEX. **Proyecto de Fin de Carrera (equiv. BSc thesis)** http://e-archivo.uc3m.es/handle/10016/7523.

Tutorials, conferences and seminars

2023 **Journées scientifiques Inria 2023**, *Opportunities in Chile: From the origin of the universe to the depths of the ocean*, with Sanchez-Pi, N., Bordeaux, France
https://mediatheque.inria.fr/Mediatheque/embed/public/79139

2021 **Genetic and Evolutionary Computation Conference (GECCO)**, *Towards a green AI: Evolutionary solutions for an ecologically viable artificial intelligence*, with Sanchez-Pi, N., Cancún (virtual)
doi: 10.1145/3449726.3461428

2018 **Genetic and Evolutionary Computation Conference (GECCO)**, *Bio-inspired approaches to anomaly and intrusion detection.*, with Schoenauer, M., Kyoto, Japan
doi: 10.1145/3205651.3207853

2017 **IEEE Conference on Evolutionary Computation (IEEE CEC'2017)**, *Applying Stopping Criteria in Evolutionary Multi-Objective Optimization*, San Sebastián, Spain
http://www.cec2017.org/#tutorials; http://lmarti.com/stopping

2016 **6ª Escola Luso-Brasileira de Computação Evolutiva**, *Many-Objective Optimization with Evolutionary Algorithms*, Universidade do Minho, Guimarães, Portugal
http://www.dep.uminho.pt/EscolaEAs2016/

2015 **IEEE Conference on Evolutionary Computation (IEEE CEC'2015)**, *Tutorial on Convergence Detection and Stopping Criteria for Evolutionary Multi-Objective Optimization*, Sendai, Japan
http://sites.ieee.org/cec2015/tutorials/; http://lmarti.com/stopping

2015 **Dagstuhl Seminar on Understanding Complexity in Multiobjective Optimization**, *Seminar 15031, January 2015*, Schloss Dagstuhl — Leibniz-Zentrum für Informatik, Dagstuhl, Germany
http://www.dagstuhl.de/de/programm/kalender/semhp/?semnr=15031

2014 **5ª Escola Luso-Brasileira de Computação Evolutiva**, *Multi-objective Estimation of Distribution Algorithms*, Laboratório Nacional de Computação Científica (LNCC), Petrópolis, Brazil
http://www.lncc.br/eventoSeminario/eventoconsultar.php?vMenu=5&idt_evento=1263

2010 **Invited speaker at the 9th Workshop on Quality Improvement Methods**, *Tutorial on EMO Stopping Criteria: Detecting Stagnation in Multi-Objective Optimization*, Universitätskolleg Bommerholz — T.U. Dortmund, Dortmund, Germany

2009 **Dagstuhl Seminar on Hybrid and Robust Approaches to Multiobjective Optimization**, *Seminar 09041, January 2009*, Schloss Dagstuhl — Leibniz-Zentrum für Informatik, Dagstuhl, Germany
http://www.dagstuhl.de/en/programm/kalender/semhp/?semnr=09041

2004 **4th Cuban-Canadian Meeting on Data Structures and Algorithms**, *Universidad de La Habana*, La Habana, Cuba

2003 **3rd Cuban-Canadian Meeting on Data Structures and Algorithms**, *Universidad de La Habana*, Havana, Cuba

2002 **Italo-Cuban School of Bioinformatics**, *Universidad de La Habana*, Havana, Cuba
Sponsored by UNESCO, the Italian Foreign Ministry and the Universidad de La Habana.

2001 **Distributed systems programming with Java technology**, *Sun Microsystems Educational Services*, Toronto, Canada

1999 **School on Theory and Applications of Programming**, *Universidad de La Habana*, Havana, Cuba
Sponsored by UNESCO, the Italian Foreign Ministry and the Universidad de La Habana.

1998 **Advanced Programming School**, *Universidad de La Habana*, Havana, Cuba
Sponsored by UNESCO, the Italian Foreign Ministry and the Universidad de La Habana.

Non-curricular, vocational and public service

2008-2011 **A trip to Computer Science through cinema**, UC3M open (general public) summer course explaining the main issues of computer science using movies as leit motif and example, Madrid, Spain

2008 **"Course Zero" on using Linux**, UC3M courses for non-engineering students to get them used to using Linux and other open source software in their academic activities, Madrid, Spain

2007-2011 **UC3M Vocational Engineering Workshops**, talks at high school institutes in the Madrid area for motivating students to get involved and study engineering careers, Madrid, Spain

2002 **A brief history of computing and artificial intelligence in Cuba**, invited talk at the IEEE Student Section of the University of Málaga, Málaga, Spain

Chaired academic events

2024 **Sponsor co-chair**, *2024 ACM SIGMOD/PODS International Conference on the Management of Data*, ACM SIGMOD, Berlin, Germany
https://2025.sigmod.org/org_conference_officers.shtml

2024 **Sponsor co-chair**, *2024 ACM SIGMOD/PODS International Conference on the Management of Data*, ACM SIGMOD, Santiago de Chile, Chile
https://2024.sigmod.org/org_conference_officers.shtml

2017 **General chair**, *XIII Brazilian Congress on Computational Intelligence (CBIC 2017)*, UFF–UERJ, Niterói (RJ) Brazil
http://cbic2017.org

Workshops

2018 **Workshop organizer**, *2018 Workshop on Intelligent Operations of the Energy Sector*, Held in conjunction with GECCO 2018, Kyoto, Japan
https://iomes2018.github.io

2016 **Workshop organizer**, *Second Workshop on Advances in Evolutionary Computation*, FMC/Univ. of Havana, La Habana, Cuba
http://lmarti.com/waec2016/

2014 **Workshop organizer**, *First Workshop on Advances in Evolutionary Computation*, DEE/PUC-Rio, Rio de Janeiro, Brazil
http://lmarti.com/waec2014/

2010 **Workshop organizer**, *Designing Evolutionary Processes (S133)*, IEEE Conference on Evolutionary Computation, part of IEEE World Congress on Computational Intelligence, Barcelona, Spain
http://www.giaa.inf.uc3m.es/miembros/lmarti/dep-wcci-2010

2008 **Session chair**, *Estimation of Distribution Algorithms Track*, 2008 IEEE Congress on Evolutionary Computation (CEC'08), Hong Kong, China

Journal reviewer

- ▷ Journal of Multi-Criteria Decision Analysis
- ▷ International Transactions in Operational Research
- ▷ IEEE Transactions on Evolutionary Computation
- ▷ Applied Soft Computing
- ▷ Neurocomputing
- ▷ International Journal of Data Mining and Bioinformatics
- ▷ IEEE Transactions on Systems, Man and Cybernetics — Part B: Cybernetics
- ▷ Journal of Global Optimization
- ▷ Computational Optimization and Applications
- ▷ Journal of Industrial and Management Optimization
- ▷ ISRN Artificial Intelligence
- ▷ Engineering Optimization
- ▷ Information Sciences
- ▷ Applied Computing and Informatics
- ▷ Future Generation Computer Systems
- ▷ IEEE Transactions on Cognitive and Developmental Systems
- ▷ Journal of Sensors
- ▷ Entropy
- ▷ IEEE Transactions on Industrial Informatics
- ▷ Telecommunication Computing Electronics and Control
- ▷ IEEE Systems Journal
- ▷ Safety Science
- ▷ IEEE Computational Intelligence Magazine
- ▷ Combinatorial Chemistry & High Throughput Screening
- ▷ Sensors

Conference program committees

2016 **IEEE Latin American Conference on Computational Intelligence (IEEE LA-CCI)**

2014 **Ibero-American Conference on Artificial Intelligence (IBERAMIA)**

2014–present **Workshop on Intelligent Systems for Context-based Information Fusion**, *http://www.paams.net/iscif*

2012–present **EVOLVE — A bridge between Probability, Set Oriented Numerics and Evolutionary Computation**

2012–present **Mexican International Conference on Artificial Intelligence**

2010–present **IEEE Congress on Evolutionary Computation (CEC)**

2010 **Simulated Evolution And Learning (SEAL)**

2009–present **International Work Conference on Neural Networks (IWANN)**

2008–present **Genetic and Evolutionary Computation Conference (GECCO)**

2008–present **International Florida Artificial Intelligence Research Society (FLAIRS) Conferences; Data Mining Special Track**

2003–2006 **International Florida Artificial Intelligence Research Society (FLAIRS) Conferences; Neural Networks Track**

Society memberships

- Association for Computing Machinery (ACM); Special Interest Group on Evolutionary Computation (ACM SIGEVO).
- Institute of Electric and Electronic Engineers (IEEE); Computational Intelligence Society (CIS).
- International Neural Networks Society (INNS).
- Neural-Symbolic Learning and Reasoning Association (NeSy).
- Foundation for Open Access Statistics (FOAS).