Curricular Summary

Daniel de Angelis Cordeiro
daniel.cordeiro@usp.br

ORCID: https://orcid.org/0000-0003-4971-7355
Lattes Curriculum: http://lattes.cnpq.br/5322325760113475
Web of Science: https://www.webofscience.com/wos/author/record/B-2208-2008
MyCitation (Google Scholar): http://scholar.google.com.br/citations?user=iQNynmkAAAAJ

1 Education

Title or activity	Starting and completion dates	Institution
Undergraduate degree on Computer Science	mar/2000 – dec/2003	Universidade de São Paulo
MSc. on Computer Science	feb/2004 – oct/2006	Universidade de São Paulo
PhD. on *Mathématiques et en Informatique*	oct/2007 – feb/2012	Université de Grenoble
Post-doctoral	jun/2012 – may/2015	Universidade de São Paulo

1.1 Education/Training – Additional Information

Nothing to declare.

2 Professional/Academic Background

(a) 2015–today: Assistant professor (MS-3.2), RDIDP, University of São Paulo.

(b) 2018–2023: Member of the Brazilian Computer Society (SBC) Council for K–12 education ("educação básica"); contributed to the Computer Science curriculum for K–12 education included in the Brazilian Common Core Curriculum ("BNCC").

(c) 2022–2024: Elected representative of the "Professores Doutores" category in USP's University Council, the executive governing body of the University of São Paulo.

3 Contributions to Science (Scientific, Technological, or Innovation)

List with five selected publications. For the full list, please refer to the CV Lattes: http://lattes.cnpq.br/5322325760113475

1. M. Vasconcelos, D. Cordeiro, G. D. Costa, F. Dufossé, J.-M. Nicod, and V. Rehn-Sonigo. "Optimal sizing of a globally distributed low carbon cloud federation". In: *The 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing* (Bangalore, India, May 1–4, 2023). 2023. DOI: 10.1109/CCGrid57682.2023.00028

2. M. Amaris, R. Camargo, D. Cordeiro, A. Goldman, and D. Trystram. "Evaluating execution time predictions on GPU kernels using an analytical model and machine learning techniques". In: *Journal of Parallel and Distributed Computing* 171 (Jan. 2023), pp. 66–78. ISSN: 0743-7315. DOI: 10.1016/j.jpdc.2022.09.002

3. M. F. S. Vasconcelos, D. Cordeiro, and F. Dufossé. "Indirect Network Impact on the Energy Consumption in Multi-clouds for Follow-the-renewables Approaches". In: *Proceedings of the 11th International Conference on Smart Cities and Green ICT Systems — SMARTGREENS*. International Conference on Smart Cities and Green ICT Systems (SMARTGREENS) (Online, Apr. 27–29, 2022). INSTICC. SciTePress, Apr. 2022, pp. 44–55. ISBN: 978-989-758-572-2. DOI: 10.5220/0011047000003203

4. L. Sant'ana, D. Carastan-Santos, D. Cordeiro, and R. Yokoingawa de Camargo. "Real-Time Scheduling Policy Selection from Queue and Machine States". In: *2019 19th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID). Conference Proceedings*. 19th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID) (Larnaca, Cyprus, May 14–17, 2019). Los Alamitos, CA, USA: IEEE Computer Society, May 2019, pp. 381–390. ISBN: 978-1-7281-0912-1. DOI: 10.1109/CCGRID.2019.00052

5. D. Cordeiro, P.-F. Dutot, G. Mounié, and D. Trystram. "Tight Analysis of Relaxed Multi-Organization Scheduling Algorithms". In: *Proceedings of the 25th IEEE International Parallel & Distributed Processing Symposium (IPDPS)* (Anchorage, AL, USA). Los Alamitos, CA, USA: IEEE Computer Society, May 2011, pp. 1177–1186. DOI: 10.1109/IPDPS.2011.112

4 Research Funding

4.1 Ongoing funded projects

- Co-coordinator with Dr. Frédéric Amblard (IRIT, Toulouse, France) of the project "Sustainable Megalopolises for Humans", an "International Research Project" funded by the *Centre national de la recherche scientifique* (CNRS, France) on the context of the new CNRS–USP International Research Center initiative (https://revistapesquisa.fapesp.br/centro-internacional-de-pesquisa-do-maior-orgao-de-ciencia-da-franca-e-inaugurado-na-usp/ and https://www.cnrs.fr/en/node/7509)
- Principal investigator of a FAPESP Science for Development Center "Carbon Neutral Cities" (FAPESP # 2024/01115-0) (with ≈ 5 million Euros of funding);
- Principal investigator of the CNPq project "Sustainable High Performance Computing on AWS" (CNPq-AWS #421787/2022-8)

4.2 Past funded projects

- FAPESP regular project: "Applications of scheduling theory to optimize green energy usage in cloud computing platforms", grant 2021/06867-2
- FAPESP post-doctoral research project: "Applications of Scheduling Theory on Cloud Computing", grant 2012/03778-0

5 Academic Quantitative Indicators

Books: 2
Publications in journals with selective editorial policy: 4
Book chapters: 2
Supervised Master's dissertations: 6 ongoing, 8 concluded
Supervised Doctoral theses: 3 ongoing, 1 concluded
Number of citations (Google Scholar): 715 (h-index: 13 / i10-index: 17)
Registered software: 1 (INPI BR512024003347-5)

6 Other relevant information

- Associate researcher of the FAPESP Thematic Projects (i) "EcoSustain — Computer and Data Science for the Environment" (FAPESP #2023/00811-0), and (ii) "Trends on High Performance Computing, from Resource Management to New Computer Architectures " (FAPESP # 2019/26702-8);
- Collaborator of the project ANR DATAZERO 2 ("DATAcenter with Zero Emission, one step beyond !"), funded by the *Agence Nationale de la Recherce* (ANR, https://anr.fr/Project-ANR-19-CE25-0016). Worked, with researchers from the *Laboratoire d'Informatique de Grenoble*, Inria (National Institute for Research in Digital Science and Technology), FEMTO-ST (Franche-Comté Électronique Mécanique Thermique et Optique - Sciences et Technologies), and IRIT (Toulouse Institute for Research in Computer Science);
- Member of the project "Resource allocation for digital twin applications" (FAPESP #2023/00702-7), in collaboration with Dr. Rizos Sakellariou (University of Manchester, UK), Dr. Luiz Fernando Bittencourt (IC-Unicamp), and Dra. Kelly R. Braghetto (IME-USP);

- Collaborator of Dr. David Bromberg, full professor at the *University of Rennes 1* and researcher of the WIDE-IRISA (INRIA) team on a research project whose goal is to study how to migrate tasks (processes efficiently and Virtual Machines) to reduce greenhouse gas emissions due to the execution of those tasks. This research is part of a current PhD research, and these results will be applied to this project;
- Collaborator of Dr. Johanne Cohen, a researcher at CNRS at the *Laboratoire Interdisciplinaire des Sciences du Numérique, Université Paris–Saclay*, on a research project whose goal is to apply Computational Social Choice on the scheduling of cooperative platforms. This research is based on our previous research project "CHOOSING: Cooperation on Hybrid cOmputing clOuds for energy SavING", funded by CAPES–Cofecub and concluded in 2019.
- Research featured on the cover story of Revista Pesquisa FAPESP (mar/25), an important Brazilian science magazine: https://revistapesquisa.fapesp.br/revista/ver-edicao-editorias/?e_id=506

6.1 Services

Activities on Scientific Societies

1. Member of the Brazilian Computing Society's São Paulo Council on Computer Architecture and High Performance Computing — CRAD-SP
2. Brazilian Computer Society's Institutional Representative at EACH–USP

Organization of scientific events

1. International European Conference on Parallel and Distributed Computing (Euro-Par): co-chair of "Track 2: Scheduling, Resource Management, Cloud, Edge Computing, and Workflows" 2025
2. Simpósio em Sistemas Computacionais de Alto Desempenho (SSCAD, formely WSCAD): workshop co-chair in 2025 and 2022
3. International Conference on Parallel Processing (ICPP): workshop co-chair 2023 and 2024
4. XII Escola Regional de Alto Desempenho de São Paulo (ERAD-SP 2021): organizer
5. XVIII Workshop em Desempenho de Sistemas Computacionais e de Comunicação (WPerformance 2019): organizer
6. Workshop on the Distributed Smart City (WDSC'2018): organizer

Regular member of conferences Scientific Committees

- AASC – International Workshop on Architecture-Aware Simulation and Computing
- ACM SAC – ACM SIGAPP Symposium On Applied Computing (Cloud Computing Track)
- BreSci – Brazilian e-Science Workshop
- CARLA – Latin America High Performance Computing Conference
- CoCoNet – International Conference on Computing and Network Communications – Poster Track
- ERAD-SP – Escola Regional de Alto Desempenho do Estado de São Paulo
- HCW – Heterogeneous Computing Workshop
- HiPC – IEEE International Conference on High Performance Computing
- ICPP – International Conference on Parallel Processing
- ICSB – International Workshop on Internet-scale Clouds and Big Data
- SBRC – Salão de Ferramentas do (Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos)
- VECPAR – International Meeting High Performance Computing for Computational Science
- WEI – Workshop sobre Educação em Computação
- WSCAD – Simpósio de Sistemas Computacionais de Alto Desempenho

- WSCAD-CTD – Simpósio de Sistemas Computacionais de Alto Desempenho (Concurso de Teses e Dissertações)
- WPerformance – Workshop em Desempenho de Sistemas Computacionais e de Comunicação
- WTF – *Workshop* de Testes e Tolerância a Falhas (Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos)

Regular reviewer for peer-reviewed journals

- ACM Transactions on Autonomous and Adaptive Systems;
- Brazilian Administration Review;
- Cluster Computing;
- Concurrency and Computation: Practice and Experience;
- Future Generation Computer Systems;
- IEEE Access;
- IEEE Transactions on Parallel and Distributed Systems;
- Journal of Internet Services and Applications;
- Journal of Network and Systems Management;
- Journal of Scheduling;
- Parallel Computing.

6.2 Academic distinctions and prizes

2024 Honorable mention award for the paper "Performance Evaluation of Dense Linear Algebra Kernels using Chameleon and StarPU on AWS" on the Brazilian Symposium on High Performance Computing Systems (SSCAD)

2022 and 2024 Best graduate research paper at the São Paulo Regional School of High Performance Computing – ERAD-SP)

2021 Honorable mention for the project "Eco-RU: encouraging sustainable menus on USP campuses", Pró-Reitoria de Cultura e Extensão Universitária (PRCEU–USP)

2020 Best undergraduate research paper at the São Paulo Regional School of High Performance Computing – ERAD-SP

2017 Best undergraduate research paper at the São Paulo Regional School of High Performance Computing – ERAD-SP (São Carlos/SP, Brazil)

2016 Best undergraduate research paper at the São Paulo Regional School of High Performance Computing – ERAD-SP (São Paulo/SP, Brazil)

2016 Best student paper in the XVII Brazilian Symposium on High Performance Computing (Aracajú/SE, Brazil)

2007 Third place in CLEI/UNESCO Latin American Master's Thesis Contest (San José, Costa Rica)

2007 Honorable mention in the Master's Thesis Contest organized by the "VIII Workshop em Sistemas Computacionais de Alto Desempenho" (Gramado, Brazil)

2005 Student scholarship to attend the 20th ACM Symposium on Operating Systems Principles (Brighton, UK)

2003 Winner of the student challenge "Desafio Talentos IBM", sponsored by IBM Brazil