

Personal data

Title	Dr.
First name	Luiz Fernando
Name	de Oliveira Chamon
Current position	ELLIS–SimTech Independent research group leader (10/2022–09/2026)
Current institution, country	University of Stuttgart, Germany
Identifiers/ORCID	0000-0001-7731-6650

Qualifications and Career

Stages	Periods and Details
Degree program	<p><i>Polytechnic School of the University of São Paulo, Brazil</i> 02/2012–02/2015</p> <p>M.Sc. in Electrical Engineering</p> <p>Dissertation: Combinations of Adaptive Filters</p> <p>Advisor: Cássio Guimarães Lopes</p> <p><i>École Centrale de Lyon and INSA-Lyon, France</i> 01/2009–06/2009</p> <p>Undergraduate exchange student of the</p> <p>M.Sc. in Acoustics program</p> <p><i>Polytechnic School of the University of São Paulo, Brazil</i> 02/2006–05/2011</p> <p>B.Sc. in Electrical Engineering (Electronic Systems)</p>
Doctorate	<p><i>University of Pennsylvania, USA</i> 09/2015–12/2020</p> <p>Ph.D. in Electrical Engineering</p> <p>Thesis: Constrained learning and inference</p> <p>Advisor: Alejandro Ribeiro</p>
Stages of academic and professional career	<p><i>University of Stuttgart, Germany</i> 10/2022–present</p> <p>ELLIS–SimTech Independent research group leader</p> <p><i>University of California, Berkeley, USA</i> 07/2021–09/2022</p> <p>Postdoctoral fellow at the Simons Institute for the Theory of Computing</p> <p><i>University of Pennsylvania, USA</i> 10/2020–06/2021</p> <p>Postdoctoral researcher</p>

Engagement in the Research System

University of Stuttgart 10/2023–09/2027
 General assembly of the Stuttgart Center for Simulation Science (deputy member)

Women in STEM 04/2022
 Judge of the **ENVISION research competition**

University of Pennsylvania 05/2020–12/2020
 COVID-19 Research and Academic Safety Reporting Committee

University of Pennsylvania 06/2018–07/2018 and 06/2019–07/2019
 Mentor for the research experience for undergraduate program **SUNFEST**

Reviewer/referee

IEEE Trans. on Signal Processing; IEEE Signal Processing Letters; IEEE Signal Processing Magazine; IEEE Journal of Selected Topics in Signal Processing; IEEE Trans. on Signal and Information Processing over Networks; IEEE Trans. on Automatic Control; IEEE Trans. on Control of Network Systems; and conferences, such as NeurIPS, ICML, IEEE ICASSP, IEEE CDC...

Scientific Results

Category A

- [1] J. Cervino, **L. F. O. Chamon**, B. D. Haeffele, R. Vidal, and A. Ribeiro. Learning globally smooth functions on manifolds. In *International Conference on Machine Learning (ICML)*, 2023. URL: <https://arxiv.org/abs/2210.00301>.
- [2] S. Paternain, M. Calvo-Fullana, **L. F. O. Chamon**, and A. Ribeiro. Safe policies for reinforcement learning via primal-dual methods. *IEEE Trans. on Autom. Control.*, 68[3]:1321–1336, 2023. DOI: [10.1109/TAC.2022.3152724](https://doi.org/10.1109/TAC.2022.3152724). URL: <https://arxiv.org/abs/1911.09101>.
- [3] **L. F. O. Chamon**, S. Paternain, M. Calvo-Fullana, and A. Ribeiro. Constrained learning with non-convex losses. *IEEE Trans. on Inf. Theory*, 69[3]:1739–1760, 2023. DOI: [10.1109/TIT.2022.3187948](https://doi.org/10.1109/TIT.2022.3187948). URL: <https://arxiv.org/abs/2103.05134>.
- [4] A. Robey*, **L. F. O. Chamon***, G. J. Pappas, H. Hassani, and A. Ribeiro. Adversarial robustness with semi-infinite constrained learning. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2021. URL: <https://arxiv.org/abs/2110.15767>. (* equal contribution).
- [5] L. Ruiz, **L. F. O. Chamon**, and A. Ribeiro. Graphon neural networks and the transferability of graph neural networks. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2020. URL: <https://arxiv.org/abs/2006.03548>.
- [6] **L. F. O. Chamon**, Y. C. Eldar, and A. Ribeiro. Functional nonlinear sparse models. *IEEE Trans. on Signal Process.*, 68[1]:2449–2463, 2020. DOI: [10.1109/TSP.2020.2982834](https://doi.org/10.1109/TSP.2020.2982834). URL: <https://arxiv.org/abs/1811.00577>.
- [7] **L. F. O. Chamon** and A. Ribeiro. Probably approximately correct constrained learning. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2020. URL: <https://arxiv.org/abs/2006.05487>.
- [8] M. Eisen, C. Zhang, **L. F. O. Chamon**, D. D. Lee, and A. Ribeiro. Learning optimal resource allocations in wireless systems. *IEEE Trans. on Signal Process.*, 67[10]:2775–2790, 2019. DOI: [10.1109/TSP.2019.2908906](https://doi.org/10.1109/TSP.2019.2908906). URL: <https://arxiv.org/abs/1807.08088>. Top 50 most accessed articles in IEEE TSP: May, July, Sept, Oct 2019.
- [9] S. Paternain, **L. F. O. Chamon**, M. Calvo-Fullana, and A. Ribeiro. Constrained reinforcement learning has zero duality gap. In *Conference on Neural Information Processing Systems (NeurIPS)*, pages 7555–7565, 2019. URL: <https://arxiv.org/abs/1910.13393>.
- [10] **L. F. O. Chamon** and A. Ribeiro. Greedy sampling of graph signals. *IEEE Trans. on Signal Process.*, 66[1]:34–47, 2018. DOI: [10.1109/TSP.2017.2755586](https://doi.org/10.1109/TSP.2017.2755586). URL: <https://arxiv.org/abs/1704.01223>.

Category B

- [1] M. Calvo-Fullana, S. Paternain, **L. F. O. Chamon**, and A. Ribeiro. State augmented constrained reinforcement learning: Overcoming the limitations of learning with rewards. *IEEE Trans. on Autom. Control.*, 69[7]:4275–4290, 2024. URL: <https://arxiv.org/abs/2102.11941>.
- [2] **L. F. O. Chamon**. csl: Learning under requirements with PyTorch, version 1.0, 2021. URL: <https://github.com/lfochamon/csl>.
- [3] D. Lamb, **L. F. O. Chamon**, V. H. Nascimento, and A. Spirer. Sparse cascaded-integrator-comb filters, 2019. URL: <https://patents.google.com/patent/US10367477B2>. US10367477B2.

Academic Distinctions

- **2020**: Best student paper award at IEEE ICASSP 2020 for “The empirical duality gap of constrained statistical learning.”
- **2020**: Best paper award at IEEE ICASSP 2020 for “Better safe than sorry: Risk-aware nonlinear Bayesian estimation.”
- **2018**: Outstanding editorial board service (IEEE Transactions on Signal Processing).
- **2018**: Best Ph.D. colloquium award
(Dept. of Electrical and Systems Engineering, University of Pennsylvania).
- **2018**: Good citizen award for services to the department
(Dept. of Electrical and Systems Engineering, University of Pennsylvania).
- **2013**: IEEE Standard Education Committee grant.
- Travel grants to major conferences: IEEE ICASSP, IEEE CDC, NeurIPS, and USENIX NSDI.

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