Lucas Gautheron

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Education

2022-2025	**PhD student**, *University of Wuppertal*, Germany, Dynamics of a research program in high-energy physics: the case of supersymmetry (Research Training Group 2696, "Transformations of science and technology since 1800: topics, processes, institutions ") [*on-going*]. $3^{1/2}$ years contract
2021-2022	**M.A**, *Université Paris-Cité*, Paris, History and Philosophy of Science [Class rank: 1st] Thesis : "Too beautiful to be false, or too beautiful to be true? Searching supersymmetry at the *Large Hadron Collider*". Supervisors: Olivier Darrigol, Elisa Omodei.
2014-2018	**Master 1**, *Ecole Normale Supérieure de Cachan*, Cachan, Fundamental Physics Full scholarship. Experimental and theoretical physics, mathematics. Options: Symmetries and path integrals; Astrophyics and Cosmology.
2012-2014	**PCSI/PC***, *Lycée Berthollet*, Annecy "Classe préparatoire aux grandes écoles"

Research

Mar 2023 to Feb 2024	**Research Assistant (part time)**, *Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP - DEC - École Normale Supérieure)*, Paris Project: investigating correlations between speech heard and produced by young infants, using long-form recordings.
Feb 2023–Jul 2023	**Visiting PhD student**, *Medialab, Sciences Po Paris*
Sep 2020 to Nov 2021	**Engineer**, *Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP - DEC - École Normale Supérieure)*, Paris Study of language acquisition across cultures through naturalistic long-form audio recordings. Supervised by Alejandrina Cristia.
Oct 2016 – Jan 2017	**Research Internship**, *Laboratoire Univers et Théories (LUTH - INSU - CNRS)*, Paris Meudon Influence of the nuclei distribution on the electron capture rates and neutrino scattering in core-collapse supernovae. Supervised by Micaela Oertel.
May 2016 – Jul 2016	**Research Internship**, *Laboratoire de Physique Nucléaire et des Hautes Énergies (LPNHE - IN2P3 - CNRS)*, Paris Diphoton analysis and phenomenology for the ATLAS experiment. Supervised by Lydia Roos. [signal modeling & parametrization, effective field theories]
Oct 2015 – Jan 2016	**Research Internship**, *Laboratoire d'Annecy-Le-Vieux de Physique Théorique (LAPth - IN2P3 - CNRS)*, Annecy-Le-Vieux Sketching the History of Modern Cosmology. Supervised par Richard Taillet.
May 2015 – Jul 2015	**Research Internship**, *Laboratoire d'Annecy-Le-Vieux des Particules (LAPP - IN2P3 - CNRS)*, Annecy-Le-Vieux Particle physics for the ATLAS experiment. Supervised by Stéphane Jézéquel.

Peer-Reviewed Publications

[1] A. Cristia, **L. Gautheron**, and H. Colleran. "Vocal input and output among infants in a multilingual context: Evidence from long-form recordings in Vanuatu". In: *Developmental Science* (Feb. 2023). DOI: 10.1111/desc.13375. URL: https://doi.org/10.1111/desc.13375.

[7] **L. Gautheron** and E. Omodei. "How research programs come apart: the example of supersymmetry and the disunity of physics". In: *Quantitative Science Studies* (Sept. 2023), pp. 1–25. DOI: 10.1162/qss_a_00262. URL: https://doi.org/10.1162/qss_a_00262.

[10] **L. Gautheron**, N. Rochat, and A. Cristia. "Managing, storing, and sharing long-form recordings and their annotations". In: *Language Resources and Evaluation* (Feb. 2022). DOI: 10.1007/s10579-022-09579-3. URL: https://link.springer.com/10.1007/s10579-022-09579-3.

[11] M. Lavechin, M. de Seyssel, **L. Gautheron**, E. Dupoux, and A. Cristia. "Reverse Engineering Language Acquisition with Child-Centered Long-Form Recordings". In: *Annual Review of Linguistics* 8.1 (Jan. 2022), pp. 389–407. DOI: 10.1146/annurev-linguistics-031120-122120. URL: https://www.annualreviews.org/doi/full/10.1146/annurev-linguistics-031120-122120.

Contributed Talks

[2] **L. Gautheron**. "From Colliders to Cosmos: Dynamics of Cooperation and Collaboration in High-Energy Physics". Summer school "Collaboration and Interdisciplinarity in Science and Technology", Wuppertal, Germany. Sept. 2023. URL: https://grk2696.de/?page_id=349.

[3] **L. Gautheron**. "Impérialisme scientifique en physique des hautes-énergies: faut-il écouter les théoriciens?" Congrès de la Société française de Philosophie des Sciences, Nanterre, France. June 2023. URL: https://sps2023nanterre.sciencesconf.org/.

[4] **L. Gautheron**. "La désunité de la physique des hautes-énergies". XIVe Congrès de la Société française d'histoire des sciences et des techniques: symposium "La physique de l'après Seconde guerre mondiale, entre ruptures et continuités", Bordeaux, France. Apr. 2023. URL: https://sfhst-2023.sciencesconf.org/.

[5] **L. Gautheron**. "Probing Socio-Epistemic Dynamics in High-Energy Physics Using the Inspire HEP Database". Big Data & HPS. May 2023. URL: https://scientoconference.com/bigdatahps2023/.

[8] **L. Gautheron**. "The many faces of supersymmetry: Supersymmetry across subcultures of High-Energy Physics, 1971–2019". 2022 History of Science Society Annual Meeting: group session on Historical Epistemology of Particle Physics and Quantum Gravity, Chicago, IL, United States. Nov. 2022. URL: https://hssonline.org/page/hss22.

[9] **L. Gautheron**. "Who trusts supersymmetry? Probing quantitative methods for investigating research orientations in High-Energy Physics". 4th International Spring School of the Epistemology of the Large Hadron Collider: The History, Philosophy and Sociology of Large Scale Experiments, Wuppertal, Germany. Mar. 2022. URL: https://www.lhc-epistemologie.uni-wuppertal.de/events/events/spring-school-2022-1.

Seminar Talks

[6] **L. Gautheron**. "Too beautiful to be false, or too beautiful to be true: supersymmetry and the future of high-energy physics". 2JM seminar, Sciences Po, Paris. May 2023.

Grants

2023	**G-Research**, *Grants for PhD students and postdocs in quantitative fields; 1,000£*

Journalism

Dec 2019 to Nov 2020	**President, Publication Manager**, *Société de Production Le Média*, Montreuil. Management of a production company with more than 12 full-time equivalent workers. Marketing procedures optimization, development of revenue forecasting models and audience data analysis.
September 2018 to Sep 2020	**Journalist**, *Le Média*, Montreuil. Specializing in data journalism and book reviews https://www.lemediatv.fr/auteurs/lucas-gautheron-9DAnWoo5Tlav1trWgg_Qlw/articles.

Selected press articles

[12] **L. Gautheron** and C. Gence. "[DATA] Les morts invisibles du coronavirus : la vérité derrière les chiffres officiels (The Hidden Toll of Coronavirus: Revealing the Truth Beyond Official Numbers)". In: *Le Média* (Apr. 4, 2020). URL: https://www.lemediatv.fr/articles/2020/data-les-morts-invisibles-du-coronavirus-la-verite-derriere-les-chiffres-officiels-SaYKcOT9RFaTkUMNO7HOYg.

[13] **L. Gautheron** and C. Gence. "[DATA] Lutte contre le COVID-19 : oui, la lenteur de l'État français a tué (Fatal Sluggishness: How France's COVID-19 Response Cost Lives)". In: *Le Média* (Apr. 23, 2020). URL: https://www.lemediatv.fr/emissions/2020/data-lutte-contre-le-covid-19-oui-la-lenteur-de-letat-francais-a-tue-PtqelwZ3SmalFijh_IZrvA.

[15] **L. Gautheron**. "Référendum ADP : les médias au service du pouvoir (Silencing Democracy: Media Blackout on the ADP Privatization Referendum)". In: *Le Média* (Aug. 1, 2019). URL: https://www.lemediatv.fr/emissions/2019/referendum-adp-les-medias-au-service-du-pouvoir-0z4S258wQWObV9CQ7R4jow.

[16] T. Kouamouo and **L. Gautheron**. "Élections européennes : un vote de classe avant tout (European Elections: It's Always About Class!)" In: *Le Média* (June 4, 2019). URL: https://www.lemediatv.fr/articles/2019/elections-europeennes-un-vote-de-classe-avant-tout-Db1jRBt_S6Cz91TlQMSG_A.

[17] **L. Gautheron**. "Des chiffres pour appréhender l'anti-Mélenchonisme de la presse". In: *Marianne* (Dec. 1, 2017). URL: https://www.marianne.net/agora/tribunes-libres/des-chiffres-pour-apprehender-l-anti-melenchonisme-de-la-presse.

Programming

Jul 2013	**Developer**, *Électricité réseau Distribution de France (ErDF)*, Annecy
	○ Design of an archive database and search system (PHP/MySQL)
	○ Automated retrieval of large amounts of data from other company-wide applications.
Mars 2011 à 2014	**Developer**, *AssaultCube*
	Development of a C++ 3D video game as part of an international team of volunteers

Skills

Computer

Programming	Python, C, C++, Fortran, Arduino
Scientific software	stan, numpy, scipy, cvxpy, scikit-learn, ROOT/RooFit
Data	Pandas, SQL, HDF
Web	PHP, HTML, JS, CSS

Languages

English	Toefl IBT: 104
French	Native
Spanish	Beginner