Lucas Gautheron

Education

- 2022-2025 **PhD student**, University of Wuppertal, Germany, Research dynamics in high-energy physics (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 (Paris-Saclay), Fundamental Physics Theoretical and experimental physics. Full scholarship with civil-servant status.
- 2012-2014 **PCSI/PC***, *Lycée Berthollet*, Annecy "Classe préparatoire aux grandes écoles"

Research

- Mar 2023 to Research Assistant (part time), Laboratoire de Sciences Cognitives et Psycholin-Feb 2024 guistique (LSCP - DEC - École Normale Supérieure), Paris Investigating correlations between speech heard and produced by young infants
- Feb 2023–Jul Visiting PhD student, Medialab, Sciences Po Paris 2023
 - Sep 2020 to Engineer, Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP DEC Nov 2021 École Normale Supérieure), Paris
 Study of language acquisition across cultures through naturalistic long-form audio recordings.
 - Oct 2016 **Research Internship**, Laboratoire Univers et Théories (LUTH INSU CNRS), Jan 2017 Paris Meudon Influence of the nuclei distribution on weak interactions in core-collapse supernovae.
 - May 2016 **Research Internship**, Laboratoire de Physique Nucléaire et des Hautes Énergies Jul 2016 (LPNHE IN2P3 CNRS), Paris Diphoton analysis and phenomenology for the ATLAS experiment.
 - Oct 2015 **Research Internship**, Laboratoire d'Annecy-Le-Vieux de Physique Théorique Jan 2016 (LAPth IN2P3 CNRS), Annecy-Le-Vieux Sketching the History of Modern Cosmology.
 - May 2015 **Research Internship**, Laboratoire d'Annecy-Le-Vieux des Particules (LAPP IN2P3 Jul 2015 CNRS), Annecy-Le-Vieux Particle physics for the ATLAS experiment.

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 President, Publication Manager, Société de Production Le Média, Montreuil

Nov 2020 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 Journalist, Le Média, Montreuil

2018 to Sep Specializing in data journalism and book reviews https://www.lemediatv.fr/auteurs/2020 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-SaYKcOT9RFaTkUMN07HOYg.
- [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-0z4S258wQW0bV9CQ7R4jow.
- [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-Db1;RBt_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
 - O 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 **Developer**, AssaultCube
 - 2014 $\,$ Development of a C++ 3D video game as part of an international team of volunteers

Skills

Computer

Programming Python, C, C++, Fortran, Arduino

Scientific stan, numpy, scipy, cvxpy, scikit-learn, ROOT/RooFit

software

Data Pandas, SQL, HDF

Web PHP, HTML, JS, CSS

Languages

English Toefl IBT: 104

French Native

Spanish Beginner