

Education

- 2022-2025 **PhD student**, *Interdisciplinary Centre for Science and Technology Studies, Wuppertal, Germany*, Modeling research dynamics in high-energy physics. 3^{1/2} years contract
- 2021-2022 **M.A**, *Université Paris-Cité*, 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
Full scholarship & civil-servant status.
- 2012-2014 **PCSI/PC***, *Lycée Berthollet, Annecy*
Maths, physics and chemistry. Preparation for the competitive entrance exams of the Écoles Normales Supérieures (research oriented top higher education institutions).

Research

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

Preprints

- [2] **L. Gautheron**. *Balancing Specialization and Adaptation in a Transforming Scientific Landscape*. 2023. DOI: 10.48550/ARXIV.2312.14040. URL: <https://arxiv.org/abs/2312.14040>.

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>.
- [9] **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.

- [12] **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>.
- [13] 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>.

Invited Talks

- [3] **L. Gautheron**. “Balancing Specialization and Adaptation in a Transforming Scientific Landscape: Modelling scientists’ behavior with Natural Language Processing”. NLP Seminar, LATTICE, Montrouge. Nov. 2023.
- [8] **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.

Contributed Talks

- [4] **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.
- [6] **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/>.
- [7] **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/>.
- [10] **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>.
- [11] **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>.

Grants

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

Journalism

Dec 2019 **President & Publication Manager**, *Société de Production Le Média*, Montreuil
 Nov 2020 Head of a production company with 12+ full-time workers.
 Sep 2018 **Journalist**, *Le Média*, Montreuil
 Sep 2020 Data journalism and book reviews https://www.lemediatv.fr/auteurs/lucas-gautheron-9DAnWoo5TlavitrWgg_Qlw/articles.

Selected press articles

- [14] **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>.
- [15] **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.

- [17] **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>.
- [18] 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.
- [19] **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 **Back-end developer**, *Électricité réseau Distribution de France (ErDF)*, Annecy
Automated retrieval of large amounts of data from other company-wide applications.
- 2011 **Volunteer**, *AssaultCube*
- 2014 Development of a C++ 3D video game as part of an international team of volunteers.

Skills & interests

- Programming Python, and some C, C++, Fortran & Arduino; Stan, PyTorch; Pandas, SQL, HDF; PHP, HTML, JS
- Languages French, English (iBT 104); Spanish (beginner)
- Interests Energy transition; climate change and the polycrisis; microcontroller programming