

Laurie Letertre

PERSONAL INFORMATION

Nationality: Belgian

Date/place of Birth: 19/08/1989

Contact information: Laurie.letertre@gmail.com

PROFESSIONAL EXPERIENCE

01/06/2023 - 01/06/2025

MSCA Postdoctoral researcher at the Munich Center for Mathematical Philosophy

Ludwig-Maximilians-Universität München - Germany

Supervisor: Prof. Stephan Hartmann

23/02/2023 - 15/04/2023

Visiting researcher at the Warsaw University of Technology

Department of Philosophy and Ethics in Administration

Faculty of Administration and Social Sciences

Contact: Prof. Antonio Vassallo

04/01/2022 - 31/12/2022

Postdoctoral researcher in formal epistemology

Czech Academy of Sciences

Philosophy Institute

Supervisor: Prof. Ladislav Kvasz

EDUCATION

01/01/2019 - 01/01/2022

PhD in Philosophy of Physics

University of Grenoble Alpes (France)

Title: Metaphysical implications of causal nonseparability

Supervisor: Vincent Lam / **Co-supervisors :** Cyril

Branciard, Stéphanie Ruphy

Laboratory Institut de philosophie de Grenoble

18/09/2017–10/09/2018

Master's degree in Philosophy of Physics [distinction 71%]

University of Bristol (England)

23/09//2016–17/09/2017

Self-instruction in general philosophy + Selected postgraduate courses

University of Mons - Research Institute for Language science and Technology

- Analysing Philosophical Texts (*mark: 17/20*) [Descartes, Hume, Hobbes]
- Analysing Texts from a Philosophical Angle (*mark: 17/20*)
- Hidden Meaning in Language (*mark: 17/20*)

University of Mons - Faculty of Science

- Philosophy of science (non-student attendance)

(Teacher: Anne Staquet)

2012 - 09/2016

PhD of Sciences in Physics

Title: Nanoscale studies of the (photo)-physical processes in hybrid polymer/Inorganic photovoltaic systems

Supervisor: Philippe Leclère / **Co-supervisor :** Olivier Douhéret

Laboratory for Chemistry of Novel Materials - University of Mons

Public defence: 23/09/2016.

09/2010 - 06/2012

Master's degree in Physics [great distinction 85%]

University of Mons (Belgium)

09/2007 - 06/2010

Bachelor's degree in Physics [great distinction 84%]

University of Mons (Belgium)

PERSONAL SKILLS

Languages

- French (native speaker)
- English (TOEFL-iBT 107, IELTS 8.0)
- Spanish (B1)

IT

- Office, LaTeX
- Java, Fortran, Python (basic knowledge)

ACADEMIC EXPERIENCE

Publications

- **Letertre, L. et al** (2016). 'Nanoscale study of MoSe₂/poly

(3-hexylthiophene) bulk heterojunctions for hybrid photovoltaic applications'. *Solar Energy Materials and Solar Cells*, 145, 116-125.

- **Letertre, L. et al** (2018). 'A scanning probe microscopy study of nanostructured TiO₂/poly (3-hexylthiophene) hybrid heterojunctions for photovoltaic applications'. *Beilstein journal of nanotechnology*, 9(1), 2087-2096.
- **Letertre, L.** (2021). 'The operational framework for quantum theories is both epistemologically and ontologically neutral'. *Studies in History and Philosophy of Science Part A*, 89, 129-137.
- **Lam, V., Letertre, L. & Mariani, C.** (2022). 'Quantum Metaphysics and the Foundations of Spacetime'. In 'The Foundations of Spacetime Physics: Philosophical Perspectives', Vassallo, A. (Ed.), *The Routledge Studies in the Philosophy of Mathematics and Physics*. **Invited**.
- **Letertre, L.**, (2022). 'Causal nonseparability and its implications for spatiotemporal relations', *Studies in History and Philosophy of Science*, 95, 64-74.
- **Letertre L.**, (**under review, invited book chapter**), 'Métaphysique quantique'. In *Sciences & métaphysique*, Editions Matériologiques.
- **Letertre, L.** (**under review**). 'Laws actualise the world: a non-Humean account of laws suited to spacetime emergence in quantum gravity'. Submitted to the 'Philosophy of Science Association', in the context of the PSA biennial meeting, for publishing in 'Philosophy of Science'.
- **Letertre, L.** (**in preparation**). 'Temporal nonlocality from indefinite causal orders'.
- **Letertre, L. & Mariani, C.** (**in preparation**). 'Indefinite causation: an intimation from modern physics ?'
- **Calosi, C., Letertre, L., Mariani, C.** (**in preparation**). 'A Tale of Battles, People and Switches'

Internships

- **Scanning probe microscopy study of hybrid photovoltaic blends**, Nanocharacterization Platform of MINATEC (Micro and NanoTEchnologies) of Grenoble (France), 11/2015 – 02/2016.
- **Kelvin probe force microscopy study of organic bulk heterojunctions**, Centre Interdisciplinaire de Nanosciences

d'Aix-Marseille (France), 03/2012.

Talks
°Invited
* Peer-reviewed
(in green: programmed)

- ° **Seminar on philosophy of physics**, to be programmed, University of Mons (UMONS), Belgium.
- ° **Seminar on philosophy of physics**, 22-05-24, University of Groningen, The Netherlands.
- ° **Seminar on philosophy of physics**, 22/11/2023, University of Geneva, Switzerland.
- ***9th biennial meeting of the European Philosophy of Science Association (EPSA23)**, 20-23/09/2023, Belgrade, Serbia.
- ***11th European Congress of Analytic Philosophy**, 21-25/08/2023, University of Vienna, Austria. (Together with co-author.)
- ***4th Lisbon International Conference on Philosophy of Science**, 12-15/07/2023, Faculty of Sciences of the University of Lisbon.
- ***21st European Conference on Foundations of Physics**, 8-10/07/2023 - University of Bristol, England.
- °**Online Lisbon Philosophy of Physics Seminars**, 31/05/2023. Cancelled.
- °**Weekly seminar of the Department of Philosophy and Ethics in Administration** - Faculty of Administration and Social Sciences - Warsaw University of Technology, 28/03/2023, Warsaw.
- °**Philosophy of physics seminar**, Faculty of Administration and Social Sciences - Warsaw University of Technology, 16/03/2023, Warsaw.
- ***The 20th European Conference on Foundations of Physics**, 28-30/10/2021, Paris.
- ***The 8th biennial meeting of the European Philosophy of Science Association (EPSA)**, 15-18/09/2021, Turin.
- ***British Society for the Philosophy of Sciences (BSPS) Annual Conference**, 7-9/07/2021, Online.
- ***Philosophy of Physics Graduate Conference**, 6-7/02/2020, Oxford (UK).
- ***8es Rencontres Doctorales Internationales en Philosophie des Sciences**, 5-6 /11/2019, Lausanne (Suisse).

- **Irvine-london-munich-polimi-salzburg conference in philosophy and foundations of physics**, 2-3/09/2019, Salzburg (Austria).
- **3rd Quantum Engineering Day, scientific workshop in 'Global Challenges Science Week: International interdisciplinary days of Grenoble Alpes'**, Grenoble, 6/06/2019.
- **Bern-Geneva-Lausanne Workshop in Philosophy of Science**, Bern, 5/03/2019
- **°Belgian Polymer Group – ATIPIC workshop**, Elewijt (Belgium), 16/02/2017 ([invited speaker](#)).
- **Belgian Polymer Group annual meeting**, Hasselt (Belgium), 23-24/05/2016.
- **EMRS Spring meeting**, Lille (France), 6/05/2016.
- **NanoWal scientific day/MAIN PhD students day**, Louvain-la-Neuve (Belgium), 27/05/2016.
- **EMRS Spring Meeting**, Lille (France), 14/05/2015.
- **Scanning Probe Microscopy Forum 2015**, Troyes (France), 16-20/03/2015.
- **°22nd general congress of the Société Française de Physique**, Marseille (France), 1-5/07/2013. ([invited speaker](#))

Posters

- **Solstice of Foundations — ETH Zurich 2019**, Quantum foundations summer school, 17-21/06/2019.
- **Scanning Probe Microscopy Forum 2016**, Sochaux (France), 21-25/03/2016.
- **EMRS Spring Meeting**, Lille (France), 27/05/2014.
- **Scanning Probe Microscopy Forum 2014**, Montauban (France), 17-21/03/2014.
- **JJC NANORGASOL – REMISOL days**, Mèze (France), 12-14/11/2013.
- **Annual scientific meeting IAP P7/05 FS2**, Gent (Belgium), 18/09/2013.
- **Scanning Probe Microscopy Forum 2013**, Spa (Belgium), 25-29/03/2013.

Teaching
(in green: programmed)

- **Guest lecture:** “Introduction à la philosophie de la mécanique quantique”, 30 November 2018, to 2^d-year Chemistry students in the University of Mons. (Invited speaker in the context of a course of philosophy for chemistry students given by Dr. Anne Staquet)
- **“Philosophie des sciences – introduction à la philosophie de la mécanique quantique”**, 24H lecture for 3d-year students in philosophy, Université Grenoble Alpes [[Lectures design and teaching](#)]
 - ❖ year 2019-2020
 - ❖ year 2020-2021
 - ❖ year 2021-2022

Popularizing science and philosophy

- **Guest lecture:** “Introduction to the philosophy of quantum physics”, 11 November 2022, to PhD students of the Department of Philosophy at the University of West Bohemia (Czech Republic).
- **“Causalité quantique: et si l’ordre des événements disparaissait à très petite échelle ?”**, article in **The Conversation**, 28/06/2021.
- **Training in scientific journalism** with Aleksandra Bogdanovic-Guillon (20H, Université Grenoble Alpes, Summer term 2021, doctoral training)
- **Outreach training:** “Vulgariser, valoriser son travail de recherche” (6H, Université Grenoble Alpes, 26 mars 2019, doctoral training)

Academic related services

- **Guest reviewer**, for Studies in History and Philosophy of Science (2021, 2022) and Taylor & Francis Group, Routledge (2024).
- **Administrative committee**, Société de Philosophie des Sciences (2021-2024)
 - ❖ Representative during the RDIPS 2022, 19-20/05/2022 Strasbourg (France)
 - ❖ Vice-president for the "Jeunes chercheurs et jeunes chercheuses" prize
 - ❖ Member of the organising committee for the RDIPS2024
- **Contributor to the [Système d'Information en Philosophie des Sciences \(SIPS\)](#):** forthcoming entry on “Janas Michael, Michael E. Cuffaro & Michel Janssen (dir.), Understanding Quantum Raffles: Quantum Mechanics on an Informational Approach : Structure and Interpretation, Cham, Springer, coll. «Boston Studies in the Philosophy of Science », vol. 340, 2022.” Contact: fabien.ferri@univ-fcomte.fr

- **Speaker at “Curiosity meets know-how - Exchange of experience for female scientists”**, 6/10/2023, Ludwig-Maximilians-Universität München (Organised by the Federal Ministry of Education and research - Germany).
- Memberships
- **Associate member** of Le Bihan’s SNSF Starting Grant project “Space, Time and Causation in Quantum Gravity”
- Awards and scholarships
- **MSCA Postdoctoral fellowship 2022**, with the Munich Center for Mathematical Philosophy - Germany.
 - **Quantum Engineering Grenoble PhD Grant**, Université Grenoble Alpes, 01/01/2019 - 01/01/2022.
 - **Best oral presentation** (Belgian Polymer Group annual meeting, 23-24/05/2016)
 - 3rd rank for the **best poster award** (Scanning Probe Microscopy Forum 2013, Spa (Belgium), 25-29 March 2013)
 - **F.R.I.A. PhD Grant**, Université de Mons (UMONS), 09/2012 - 09/2016.

REFERENCES

- Vincent Lam, Bern University, thesis supervisor (vincent.lam@unibe.ch)
- Cyril Branciard, Institut Neel, thesis co-supervisor (cyril.branciard@neel.cnrs.fr)
- Stéphanie Ruphy, Ecole normale supérieure – Université PSL Paris, thesis co-supervisor (stephanie.ruphy@ens.psl.eu)
- Claudio Calosi, University of Geneva, thesis rapporteur (claudio.calosi@unige.ch)
- Kerry Mckenzie, UC San Diego, thesis rapporteur
- Ognyan Oreshkov, Université Libre de Bruxelles, thesis examiner
- Denis Perrin, Université Grenoble-Alpes, President of the thesis defence