

Emilia Margoni
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Curriculum vitae

Areas of Specialization: Philosophy of physics, Philosophy of science

Areas of Competence: Metaphysics, Epistemology, Scientific Reasoning

Current position

2026-2028 **Humboldt Fellow**, LMU & MCMP (Prof. Stephan Hartmann)

Previous positions

2024-2026 **SNF Postdoc in Philosophy**, Université de Genève (Prof. Baptiste Le Bihan)

Education:

2020-2024 **PhD in Philosophy**, Università degli Studi di Firenze/Pisa (Prof. Elena Castellani) in co-supervision with the Université de Genève (Prof. Christian Wüthrich), First Class Honours

2018-2020 **MA in Philosophy**, Università degli Studi di Roma La Sapienza, First Class Honours

2017-2018 **24-CFU qualification for high-school teaching** (Math and Physics), Università degli Studi di Roma La Sapienza

60-CFU maturation in Philosophy for MA admission, Università degli Studi di Roma La Sapienza

2015-2017 **MS in Physics of Matter**, Università degli Studi di Pisa, First Class Honours

2012-2015 **BS in Physics**, Università degli Studi di RomaTre, First Class Honours

2007-2012 **Classical high-school diploma**, Liceo Classico Eugenio Montale, First Class Honours

Visiting positions:

01/2026 Universidad Complutense de Madrid, Madrid (Prof. Daniele Oriti)

11/2024 Western University, London Ontario (Prof. Francesca Vidotto)

11/2023 University of Illinois, Chicago (Prof. Nick Huggett)

2022-2023 Munich Center for Mathematical Philosophy (Prof. Stephan Hartmann) and Arnold Sommerfeld Center for Theoretical Physics (Prof. Daniele Oriti)

2021-2022 Université de Genève, Geneva (Prof. Christian Wüthrich)

01/2020-03/2020 University of Nottingham, Nottingham (Prof. Jonathan Tallant)

Awards:

2025 **Humboldt Fellowship**, two years position (starting from 02/2026), title of the project: “Critical phenomena and the open systems view: Towards a novel, anti-fundamentalist framework”, LMU & MCMP Munich (Prof. Stephan Hartmann)

2023 **Blaumann Foundation Research Grant**, scholarship at the Arnold Sommerfeld Center for Theoretical Physics (Munich) for a joint project with Prof. Daniele Oriti titled “Group Field Theory and spacetime functionalism: A case study”

2023 **Bourse Philibert Collart de la Société Académique de Genève**, scholarship from the Faculty of Letters of the University of Geneva for young philosophers to complete their post-master degree

2020 **Hanneke Janssen Memorial Prize**, International prize for the best MA thesis in

- the history and philosophy of modern physics
- 2019-2020 **Scholarship for MA thesis research abroad**, Nottingham (UK)
Field of study: Philosophy of time; Tutor: Prof. Jonathan Tallant
- 2016 **HHMI scholarship at Janelia Research Campus**, under prof. Karel Svoboda's Lab, Ashburn (VA, USA)
- 2015 **Scholarship at INFN in Nuclear Physics**, which I was not able to achieve due to parallel incompatible projects, Frascati (RM)
- 2015 **Internship at The IHP** (Innovations for High Performance Microelectronics), Frankfurt Oder (DE)
- 2012-2015 **3-years scholarship** funded by Università degli Studi di RomaTre for outstanding students
- 2012 **Scholarship** as excellent high-school student

Monograph in philosophy:

Margoni E (2025). David Bohm, DERIVEAPPRODI, ISBN: 978-88-6548-587-3

Papers in philosophy:

Margoni, E. (2026). Which quantum foundations for the minimalist ontology framework? *Philosophical Studies*. <https://doi.org/10.1007/s11098-026-02485-2>.

Castellani, E., Dekhil, R., Margoni, E. (2025). Nuclear energy: modeling dimensions from an «adequacy for purpose» view. *Rivista di filosofia*, Rivista quadrimestrale" 3/2025, pp. 537-560, doi: 10.1413/119270. <https://www.rivisteweb.it/doi/10.1413/119270>.

Le Bihan, B., Margoni, E., Vieser, A. (2025). Possibility in physics. In. H. Zwirn (Ed.), *Quantum Physics and Cosmology*, ISTE, p 303-322. <https://doi.org/10.1002/9781394427673.ch14>

Barzegar, A., Margoni, E., Oriti, D. (2025). A minimalist account of agency in physics. *Studies in History and Philosophy of Science*. <https://doi.org/10.1016/j.shpsa.2025.06.004>.

Margoni, E., Oriti, D. (2025). The emergence of spacetime: What role for functionalism? *The British Journal for the Philosophy of Science*. <https://doi.org/10.1086/735277>.

Margoni, E. (2025). "Processualism ahead of time: Bohm's understanding of physics". In Oldofredi, A. (Ed.), *Guiding Waves in Quantum mechanics: 100 Years of de Broglie-Bohm Pilot-Wave Theory*, Oxford: Oxford University Press.

Margoni, E. (2024). Adynamism in Physics: The Block Universe vs Barbour's Relational Strategy. *Journal for General Philosophy of Science*. <https://doi.org/10.1007/s10838-024-09688-3>.

Buonocore, G., Margoni, E., Pero, F. (2023). Conceiving the Inconceivable: An Assessment of Stanford's New Induction. *Argumenta* 9, 1: 27-41. <https://doi.org/10.14275/2465-2334/202317.buo>.

Castellani, E., Margoni, E. (2022). "Renormalization Group Methods: Which Kind of Explanation?", *Studies in History and Philosophy of Science* (95): 158-166. <https://doi.org/10.1016/j.shpsa.2022.07.009>.

Margoni, E. (2022). "Can There be a Process Without Time? Processualism Within Timeless Physics", *Foundations of Physics*, 52 (48). <https://doi.org/10.1007/s10701-022-00564-y>.

Croce, M., Margoni, E. (2021), “How does an entity acquire identity? Reassembling Relativistic Physics with Actor-Network Theory”, *Foundations of Science*, <https://doi.org/10.1007/s10699-021-09800-6>.

Papers in physics:

Scardigli, M., Müllenbroich, C., Margoni, E., Cannazzaro, S., Crocini, C., Ferrantini, C., Coppini, R., Yan, P., Loew, L., Campione, L., Bocchi, Giulietti, D., Cerbai, E., Poggesi, C., Bub, G., Pavone, F. S., Sacconi, L. (2018), “Real-time optical manipulation of cardiac conduction in intact hearts”, *The Journal of Physiology*, 596 (17).

Mascaro, A. L. A., Costantini, I., Margoni, E., Iannello, G., Bria, A., Sacconi, L., Pavone, F. S. (2015), “Label-free near-infrared reflectance microscopy as a complimentary tool for two-photon fluorescence brain imaging”, *Biomed Opt Express*, 6 (11).

Conference Proceedings:

Diociaiuti, E., Donghia, R., Giovannetti, M., Macis, S., Margoni, E., Patrignanelli, E., Petrassi, M. (2022), “The GRaffa project: final considerations after one year of activities”, PoS (ICHEP2022) 377.

Diociaiuti, E., Donghia, R., Giovannetti, M., Macis, S., Margoni, E., Patrignanelli, E., Petrassi, M. (2022), “GRaffa: a scientific communication project by young researchers for very young people”, IATED, doi:10.21125/edulearn.2022.0527.

Margoni, E., Cannazzaro, S., Ferrantini, C., Coppini, R., Yan, P., Loew, L., Bocchi, L., Campione, M., Cerbai, E., Poggesi, C., Bub, G., Pavone, F. S., Sacconi, L. (2018), “Real time optical Manipulation of the cardiac conduction pathway”, *Optogenetics and Optical Manipulation*, Proceedings, 10482, <https://doi.org/10.1117/12.2288467>.

Mascaro, A. L. A., Costantini, I., Margoni, E., Iannello, G., Bria, A., Sacconi, F., Pavone F. S. (2016) “Label-free NIR reflectance imaging as a complimentary tool for two-photon fluorescence microscopy; multimodal investigation of stroke”, *Multiphoton Microscopy in the Biomedical Sciences XVI*, Proceedings, 9712, <https://doi.org/10.1117/12.2208886>.

Reviews:

I regularly collaborate with the literary portal Doppiozero. Here is the list of my articles: <https://www.doppiozero.com/emilia-margoni>. I occasionally wrote for the Italian newspaper Domani. Here is the list of my articles: <https://www.editorialedomani.it/search?q=margoni>.

Organisation of scientific meetings:

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| 2025 | Climate change and nuclear energy: modeling activities in times of emergency (Florence, 07/04/2025), Organizers: Elena Castellani, Roukaya Dekhil, Emilia Margoni) |
| 2024 | Quantum Gravity and the Laws of Nature (Geneva, 12-13/12/2024)
Organizers: Baptiste Le Bihan, Emilia Margoni |
| 2023 | Spacetime is as spacetime does: <i>pro</i> and <i>contra</i> (Florence, 9/06/2023)
Organizers: Elena Castellani, Emilia Margoni |
| 2023 | Quo vadis tempus? Geneva-Lausanne Workshop on Philosophy of Physics (Lausanne, 24/05/2023-25/05/2023) Organizers: Joshua Babic, Enrico Cinti, Cristian Lopez, Emilia Margoni, Christian Wüthrich |

Teaching:

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| 2025 | Lesson at the Summer School “Process Metaphysics” (Scienza Nuova Institute) |
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- Processualism all the way down: Bohm's understanding of physics (Turin, 17/09/2025)
- 2023 **Lesson at Scuola Superiore di Studi Avanzati (Sapienza)** Il nucleare: un'introduzione (Rome, 26/04/2023)
- 2023 **Lesson for the Italian Foundation Hapax** An introduction to quantum mechanics (12/01/2023)
- 2021 **Tutoring for MA students in philosophy of science** University of Florence

Invited talks:

- 2026** Group meeting led by Francesca Vidotto, Instituto de Estructura de la Materia, (Madrid, 19/01/2026), Is the philosophy of physics anything at all? A brief account of a glorious non-entity
- 2025** Workshop: Process Metaphysics (Turin, 19/09/2025), Meeting at the crossroads: foundational physics and process thinking
- 2025** EPSA symposium on "Understanding Effective Field Theories" (Groningen, 29/08/2025), Cluster transfer: the Renormalization Group Case (joint work with Elena Castellani)
- 2025** Philosophy of Science Seminar (Bern, 25/03/2025), Processualism ahead of time: Bohm's understanding of quantum mechanics and the theory of special relativity
- 2024** Festival of Astronomy (Castellaro Lagusello, 07/06/2024-9/06/2024): opening night on time in physics and psychology (in dialogue with Prof. Giovanna Mioni)
- 2024** Methodological Transformations in Fundamental Physics (Wuppertal, 16/09/2024 – 18/09/2024), Knowledge Transfer in Theory Building/Appraisal (joint work with Elena Castellani)
- 2023** Rethinking the Foundations of Physics (Munich, 11/09/2023 – 12/09/2023), Spacetime Emergence in Quantum Gravity: What Role for Functionalism? (joint work with Daniele Oriti)
- 2023** Open Topics in Philosophy of Physics (Lisbon, 12/06/2023-14/06/2023), Cluster Transfer: The RG Case (joint work with Elena Castellani)
- 2023** First Barcelona-Geneva Workshop in Philosophy & Metaphysics of Science Boh(e)mian metaphysics: a praise for processualism (Geneva, 21/04/2023)
- 2022** Lisbon Philosophy of Physics Seminars Can Bohmian ontology be a minimalist ontology? (Online seminar, 05/10/2022)
- 2022** 3rd Conference of the P.R.I.N. The Manifest Image and The Scientific Image Title: Can Bohmian ontology be a minimalist ontology? (Urbino, 20/06/2022)
- 2022** POND Philosophy of Physics seminar Renormalization Group Methods: Which Kind of Explanation? Joint work with Elena Castellani (Online, 08/06/2022)
- 2021** Philosophy Exchange. Philosophy of Science Graduate Conference. From Theory to Practice, London School of Economics Conceiving the Inconceivable: An Assessment of Stanford's New Induction (with Giovanni Buonocore & Francesca Pero) (Online seminar, 30/10/2021 – 31/10/2021)

Conference Participation:

- 2025** Inaugural Workshop on Emergent Geometry (Stockholm, 17/11/2025-21/11/2025)
- 2025** Science in times of emergency: the role of scientific knowledge in policymaking during crises (Rome, 06/11/2025-07/11/2025), organized by Mariano Croce and Andrea Salvatore
- 2025** Climate change and nuclear energy: modeling activities in times of emergency (Florence, 07/04/2025), Nuclear energy risks: scientific modeling from the adequacy-for-purpose perspective (Florence, 07/04/2025), joint work with Elena Castellani and Roukaya Dekhil

2024 Metaphysics Beyond Spacetime 2024 (Ovronnaz, 11/06/2024 – 14/06/2024), organized by Annica Vieser, Baptiste Le Bihan and Christian Wüthrich, discussant of Prof. Richard Dawid's presentation

2023 Model transfer and its challenges in science (Hannover, 30/11/2023-1/12/2023), Cluster Transfer: The RG Case (joint work with Elena Castellani)

2023 Cosmology and Quantum Gravity Beyond Spacetime Conference (London Ontario, 10/11/2023-12/11/2023), discussant of Prof. Lee Smolin's presentation

2023 Metaphysics Beyond Spacetime 2023 (Ovronnaz, 20/06/2023 – 23/06/2023), organized by Baptiste Le Bihan, discussant of Prof Carlo Rovelli's presentation

2022 Metaphysics Beyond Spacetime 2022 (Ovronnaz, 15/06/2022 – 18/06/2022) organized by Baptiste Le Bihan), discussant of Prof. Nick Huggett's presentation

2021 The 20th European Conference on Foundations of Physics Can Bohmian ontology be a minimalist ontology? (Paris, 28/10/2021 – 30/10/2021)

2017 Poster during Fotonica annual meeting, Title: Optical manipulation of the cardiac conduction pathway using a digital micro-mirror device

2015 Talk during the 101^o Congress of the SIF (Italian Society of Physics), Label-free NIR reflectance microscopy as a complimentary tool for two-photon fluorescence brain imaging (Rome, September)