# Curriculum Vitae – Daniele Molinini

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| **Nationality** | Italian |
| **Date of Birth** | January 27, 1980 |
| **Place of Birth** | Pescara (Italy) |
| **Contact Information** | Centre for Philosophy of Science of the University of Lisbon (CFCUL) <br> Department of History and Philosophy of Science <br> University of Lisbon <br> Campo Grande, Edifício C4, Sala 4.3.16 <br> 1749-016 Lisboa, Portugal <br><br> Mobile phone number: +39 335 84 36 278 <br> E-mail: dmolinini@gmail.com ; dmolinini@fc.ul.pt <br> Webpages: https://ciencias.ulisboa.pt/perfil/dmolinini (ULisboa) <br> https://cfcul.ciencias.ulisboa.pt/equipa/daniele-molinini/ (CFCUL) |
| **ORCID iD** | https://orcid.org/0000-0001-5783-7395 |
| **Research Areas** | Philosophy of Science, Philosophy of Mathematics, History of Science. |

## Education, Degrees and Qualifications

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| CURRENT POSITION | [since September 2020] FCT Principal Researcher (6-years contract) and Assistant Professor of Epistemology and Philosophy of Science, Centre for Philosophy of Science of the University of Lisbon (CFCUL), Department of History and Philosophy of Science, University of Lisbon, Lisbon, Portugal. <br><br> [since 2019] Adjunct Professor ("Professore a contratto"; disciplinary field 11/C2 - Logic, History and Philosophy of science) for the course History of Science (36 hours), Faculty of Philosophy, University Vita-Salute San Raffaele, Milano, Italy. |
| 2017–2020 | FCT Researcher (5-years contract) and Assistant Professor of Epistemology and Philosophy of Science, Centre for Philosophy of Science of the University of Lisbon (CFCUL), Department of History and Philosophy of Science, University of Lisbon. <br><br> National Scientific Qualification (ASN) as Associate Professor in the Italian higher education system for the disciplinary field of 11/C2 - Logic, History and Philosophy of Science. Obtained on 29/03/2018 (in the call 2016/2018) and valid until 29/03/2027. <br><br> Visiting scholar at School for Advanced Studies (IUSS), Pavia. From 17/12/2019 to 20/12/2019. <br><br> Visiting scholar at Department of Philosophy Communication and Performing Arts, University of Rome 'Roma Tre'. From 5/06/2018 to 31/07/2018. <br><br> Visiting scholar at Institut d'Histoire et de Philosophie des Sciences et des Techniques (IHPST), Paris. From 17/01/2018 to 24/01/2018. |
| 2016 | Postdoctoral Researcher, Department of Philosophy, Communication and Media Studies, University of Rome 'Roma Tre'. |
| 2014–2015 | Research assistant ('cultore della materia'), Department of Philosophy, Communication and Media Studies, University of Rome 'Roma Tre'. |

| 2013 | "Qualification aux fonctions de maître de conférences" at the Conseil National des Universités -CNU-, France. Qualified for sections 17 (Philosophie) and 72 (Epistémologie, Histoire des Sciences et des Techniques). This qualification permits me to apply for 'maître de conférences' positions in universities and grandes ecoles in France. |
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| 2012–2013 | Fernand Braudel-IFER postdoctoral fellow at LOGOS Group, University of Barcelona. Research area: Philosophy of Science, Philosophy of Mathematics. (research project *Testing the Viability of a Common Theoretical Framework Within Different Kinds of Mathematical Explanations in Science*). From 1/11/2012 to 31/07/2013. |
| 2007–2011 | Ph.D degree in Epistemology, History and Philosophy of Science from the University of Paris 7 Denis Diderot (Paris, France). Date degree conferred: 18 July, 2011. Title: *Toward a Pluralist Approach to Mathematical Explanation of Physical Phenomena*. Supervisor: Marco Panza (CNRS, University of Paris 1); co-supervisor: José Antonio Díez (LOGOS Group, Universitat de Barcelona). Distinction awarded: 'Très Honorable avec les Félicitations du Jury' (Highly Honorable with Praises of the Jury).<br><br>Member of the research group SPHERE-REHSEIS (UMR 7219), Université Paris 7 Denis Diderot. |
| 2009–2010 | Visiting scholar at Logic, Language and Cognition Research Group (LOGOS), Department of Philosophy, University of Barcelona. From 1/01/2009 to 31/12/2010. |
| 2008 | Visiting scholar at the Department of Mathematics, UNAM, Mexico City. From 27/03/2008 to 23/04/2008. |
| 2006–2007 | Master 2 (equivalent to Master of Arts) in Logic Philosophy History and Sociology of Sciences (LOPHISS) from the University of Paris 7 Denis Diderot (Paris, France). Thesis title: *La Géographie d'Idrisi-Roger. Une Synthèse entre Orient et Occident*. Supervisor: Régis Morelon (CNRS, CHSPAM). Grade: A level with distinction.<br><br>Research Fellow, UNIVPM - Università Politecnica delle Marche (research project *Analysis of the transcriptional maps and the variations of the functional moduli in the course of the human myeloid differentiation*). |
| 1999–2005 | Laurea in Fisica vecchio ordinamento (equivalent to Bachelor degree in Physics) from the University of Bologna. Thesis title: *Analysis and development of computational methods for the prediction of the Coiled Coils domains in protein sequences*. Supervisor: Piero Fariselli (University of Bologna, Biocomputing Group). Grade: 106/110. |

## Research Grants

| 2017–TO DATE | FCT Exploratory Research Project PeX (funding for my research project PHI-ASM: *Philosophical Investigation of Applications of Science in Mathematics*). Budget: 50.000 €. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal. Duration: 18 months (starting date: 01/01/2023). Reference: 2022.06784.PTDC.<br><br>Development Grant, international call 'Individual Call to Scientific Employment Stimulus 2018' (FCT – Fundação para a Ciência e a Tecnologia, Portugal). Level: FCT Principal Researcher. Duration: 6 years (2020–2026). Reference: CEECIND/01827/2018.<br><br>Starting Grant, international call '2015 FCT Investigator Programme' (FCT – Fundação para a Ciência e a Tecnologia, Portugal). Level: FCT Researcher. Duration: 5 years (2017–2021). Reference: IF/01354/2015.<br><br>FCT Exploratory Research Project (funding for my research project *Disclosing the Role of Visual Reasoning and Mathematical Diagrams in Scientific Explanation*). Budget: 40.000 €. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal. Duration: 5 years (2017–2021). |
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## Fellowships and Scholarships

**2017–TO DATE** Visiting fellowship from the School for Advanced Studies (IUSS). Scholarship covered by fundings of the eMath research project (Epistemology and Philosophy of Mathematics and Logic), Department of Humanities and Life Sciences, IUSS (Pavia, Italy).

**2016** Postdoctoral fellowship from the Department of Philosophy, University of Rome 'Roma Tre' (Rome, Italy). Research project: *The Nature of Scientific Knowledge and Scientific Progress.*

**2012–2013** Postdoctoral fellowship Fernand Braudel-IFER Outgoing from the Fondation Maison des Sciences de l'Homme (FMSH, Paris) and the European Union (Action Marie Curie -COFUND- 7th PCRD).

**2010** Visiting fellowship ("Aides à la mobilité") from the Ecole Doctorale ED400, University of Paris 7 Denis Diderot (Paris, France).

**2008** Visiting fellowship from the 'ECOS-Nord project for scientific interchanges between France and Mexico in the domain of history of mathematics'. Funding agency: Comité ECOS-NORD, Université Paris 13 (Paris, France).

**2007–2010** Doctoral fellowship ("Allocation de recherche") from the University Paris 7 Denis Diderot (Paris, France).

**2006–2007** Research fellowship ("assegno di ricerca") from the UNIVPM - Università Politecnica delle Marche. Research project: *Analysis of the transcriptional maps and the variations of the functional moduli in the course of the human myeloid differentiation.*

**2002–2003** Erasmus scholarship from the University of Bologna (host institution: University of Paris 7 Denis Diderot, Paris, France).

## Participation in Research Projects

**IN PROGRESS** *Philosophical Investigation of Applications of Science in Mathematics* (PHI-ASM). 01/01/2023–01/07/2024 (18 months). **P**rincipal **I**nvestigator: Daniele Molinini. Project reference: 2022.06784.PTDC. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal.

*Exploring the Weak Objectivity of Mathematical Knowledge* (EWOMK). 01/09/2020–31/08/2026 (6-years research project). **P**rincipal **I**nvestigator: Daniele Molinini. Project reference: CEECIND/01827/2018. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal.

Strategic Project of the *Centre for Philosophy of Science of the University of Lisbon*, 2020–to date. Budget: 570.000,00 €. Project reference: UID/00678/2020. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal.

**2018–2021** *Emergence in the Natural Sciences: Towards a New Paradigm.* 01/10/2018–30/09/2021. Principal Investigator: David Yates (Centre of Philosophy, University of Lisbon; david.yates@campus.ul.pt). Budget: 239.365,17 €. Project reference: PTDC/FER-HFC/30665/2017. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal.

**2017–2020** *Disclosing the Role of Visual Reasoning and Mathematical Diagrams in Scientific Explanation*, 01/01/2017–31/08/2020 (5-years research project). **P**rincipal **I**nvestigator: Daniele Molinini. Budget: 40.000 €. Project reference: IF/01354/2015. Funding agency: FCT (Fundação para a Ciência e a Tecnologia), Portugal.

| 2016 | *Structures and Dynamics of Knowledge and Cognition* (FIRB project), 2016, Department of Philosophy, Communication and Media Studies (University of Rome 'Roma Tre'). Principal Investigator: Vincenzo Crupi (Università di Torino, vincenzo.crupi@unito.it). Project reference: D11J1200047001. Funding agency: MIUR (Ministry of Education, Universities and Research), Italy. |
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| 2012–2013 | *Testing the Viability of a Common Theoretical Framework Within Different Kinds of Mathematical Explanations in Science*, 01/11/2012–31/07/2013, LOGOS Group (University of Barcelona). **P**rincipal **I**nvestigator: Daniele Molinini. Funding agency: Fondation Maison des Sciences de l'Homme (FMSH, Paris) and the European Union (Action Marie Curie -COFUND- 7th PCRD). |
| 2012–2013 | *Representación y Explicación en la Ciencia: Analisis Monistas y Pluralistas*, LOGOS Group (University of Barcelona). Principal Investigator: José Antonio Díez (LOGOS Group Università di Barcellona, jose.diez@ub.edu). Project reference: FFI2012-37354. Funding agency: Ministerio de Ciencia e Innovación, Spain. |
| 2009–2010 | *Representación y Explicación en la Ciencia: Analisis Inherentistas y Funcionales.* LOGOS Group (University of Barcelona). Principal Investigator: José Antonio Díez (LOGOS Group Università di Barcellona, jose.diez@ub.edu). Project reference: FFI2008-01580. Funding agency: Ministerio de Ciencia e Innovación, Spain. |
| 2008 | *ECOS-Nord project for scientific interchanges between France and Mexico in the domain of history of mathematics*, UNAM, Mexico City, Mexico, March-April 2008. Principal Investigators: Carlos Àlvarez Jiménez (UNAM, alvarji@servidor.unam.mx), Marco Panza (CNRS, marco.panza@univ-paris1.fr). Project reference: M04H01. Funding agency: Comité ECOS-NORD Université Paris 13, France. |
| 2006–2007 | *Analysis of the transcriptional maps and the variations of the functional moduli in the course of the human myeloid differentiation*, Universitá Politecnica delle Marche, from 16 June 2006 to 15 June 2007. Principal Investigator: Giovanni Principato (UNIVPM, principato@univpm.it). Funding agency: MIUR (Ministry of Education, Universities and Research), Italy. |

## Prizes

| 2021 | Winner of the Prize DHFC 2021 (*Prémio Departamento de História e Filosofia das Ciências 2021*) with the paper "The Unreasonable Effectiveness of Physics in Mathematics" (500 €). |
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## Teaching

| 2022–2023 | Responsible for the doctoral course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Doctoral Programme in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon. (PhD programme description and study plan available here) |
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| | Responsible for the graduate course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Master in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon. (course web page available here) |
| | Adjunct Professor ("Professore a contratto") for the course 'History of Science' (36 hours; 6.0 credits), Bachelor of Philosophy, Faculty of Philosophy, University Vita-Salute San Raffaele, Milano, Italy. (course syllabus available here) |
| 2021–2022 | Responsible for the doctoral course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Doctoral Programme in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon. |

Responsible for the graduate course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Master in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon.

Adjunct Professor ("Professore a contratto") for the course 'History of Science' (36 hours; 6.0 credits), Bachelor of Philosophy, Faculty of Philosophy, University Vita-Salute San Raffaele, Milano, Italy.

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| 2020–2021 | Responsible for the doctoral course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Doctoral Programme in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon. |

Responsible for the graduate course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Master in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon.

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| 2017–2018 | Responsible for the doctoral course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Doctoral Programme in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon. |

Responsible for the graduate course 'Epistemology and Philosophy of Science in the 20th Century' (36 hours; 6.0 credits), Master in History and Philosophy of Science, Faculty of Sciences, Dept. of History and Philosophy of Sciences, University of Lisbon.

## Refereeing for Funding Agencies

Swiss National Science Foundation (SNSF): evaluator SNSF Postdoc.Mobility fellowships.

## Peer Review Activity

Reviewer for *The British Journal for the Philosophy of Science* (peer-reviewed, academic journal of philosophy, owned by the British Society for the Philosophy of Science and published by the

University of Chicago Press).

Reviewer for *Philosophy of Science* (peer-reviewed, academic journal of philosophy, published by the University of Chicago Press).

Reviewer for *Mind* (peer-reviewed academic journal published by Oxford University Press on behalf of the Mind Association)

Reviewer for *The Philosophical Quarterly* (peer-reviewed, academic journal of philosophy, published by Oxford Academic on behalf of the University of St. Andrews).

Reviewer for *Philosophers' Imprint* (refereed series of original papers in philosophy, founded at the University of Michigan, with the advice of an international Board of Editors, and published on the World Wide Web by the University of Michigan Digital Library).

Reviewer for *Erkenntnis* (peer-reviewed journal of philosophy published by Springer Netherlands).

Reviewer for *European Journal for Philosophy of Science* (peer-reviewed, official journal for the European Philosophy of Science Association, published by Springer)

Reviewer for *Mathematical Reviews* (AMS - American Mathematical Society)

Reviewer for *International Studies in the Philosophy of Science* (peer-reviewed journal of philosophy published by Taylor & Francis)

Reviewer for *Philosophia Scientiae* (peer-reviewed scientific journal published by Kimé Editions, Paris).

Reviewer for *Theoria. An International Journal for Theory, History and Foundations of Science* (peer-reviewed scientific journal published by the University of the Basque Country).

Reviewer for *Kairos. Journal of Philosophy & Science* (peer-reviewed scientific journal published by Walter de Gruyter GmbH).

## Publications

BOOKS

[1] Molinini, D. (2014). *Che cos'è una Spiegazione Matematica*. Roma: Carocci Editore. (ISBN 978-88-430-7351-1)

[2] Molinini, D. (2011). *Towards a Pluralist Approach to Mathematical Explanation of Physical Phenomena*. Lille: ANRT. (ISBN 9782729583828)

EDITED VOLUMES

[3] Molinini, D., Pataut F. & Sereni A. (Eds.) (2016). Special Issue Indispensability and Explanation. *Synthese*, Springer. ISSN: 0039-7857 (Print) 1573-0964 (Online). URL: https://link.springer.com/journal/11229/volumes-and-issues/193-2.

PEER-REVIEWED ARTICLES

[4] Molinini, D. (forthcoming). Applicability of Mathematics in Science. In Mattingly, J. M. (Ed.), *The SAGE Encyclopedia of Theory in Science, Technology, Engineering, and Mathematics*. Thousand Oaks (US): SAGE Publications. (ISBN 9781483347721)

[5] Molinini, D. & Panza, M. (2022). L'applicabilité des mathématiques. In Arana, A. & Panza, P. (Eds.), *Précis de Philosophie des Mathématiques et de la Logique Vol. 2* (pp. 427–466). Paris: Éditions de la Sorbonne.

[6] Molinini, D. (2022). Direct and converse applications: Two sides of the same coin? *European Journal for Philosophy of Science*, 12(8). DOI: 10.1007/s13194-021-00431-z. URL: https://doi.org/10.1007/s13194-021-00431-z

[7] Molinini, D. (2021). The Unreasonable Effectiveness of Physics in Mathematics. *The British Journal for the Philosophy of Science*. DOI: 10.1086/715104. URL: https://doi.org/10.1086/715104

[8] Molinini, D. (2020). Il ruolo della matematica nell'ideale aristotelico di conoscenza scientifica. In Lolli, G. and Tortoriello, F. S. (Eds.), *L'arte di pensare. Matematica e filosofia* (pp. 1–39). Novara: UTET Università.

[9] Molinini, D. (2020). Intended and Unintended Mathematics: the case of the Lagrange Multipliers. *Journal for General Philosophy of Science*, 51, 93–113.

[10] Molinini, D. (2020). The Weak Objectivity of Mathematics and Its Reasonable Effectiveness in Science. *Axiomathes*, 30, 149–163.

[11] Molinini, D. (2018). Parsimony, Ontological Commitment and the Import of Mathematics. In Piazza, M. and Pulcini, G. (Eds.), *Truth, Existence and Explanation*, Boston Studies in the Philosophy and History of Science, Vol. 334 (pp. 189–207). Dordrecht: Springer.

[12] Molinini, D. (2018). The because of Because Without Cause. *Philosophia Mathematica*, 26(2), 275–286.

[13] Molinini, D., Pataut, F. & Sereni A. (2016). Indispensability and Explanation: an Overview and Introduction. *Synthese*, 193(2), 317–332.

[14] Molinini, D. & Friend M. (2016). Using Mathematics to Explain a Scientific Theory. *Philosophia Mathematica*, 24(2), 185–213.

[15] Molinini, D. (2016). Evidence, Explanation and Enhanced Indispensability. *Synthese*, 193(2), 403–422.

[16] Molinini, D. (2016). The Epistemological Import of Euclidean Diagrams (in a non-Euclidean world). *Kairos*, 16(1), 124–141.

[17] Molinini, D. & Panza, M. (2014). Sull'applicabilità della Matematica. In Varzi, A. and Fontanari, C. (Eds.), *La matematica nella società e nella cultura - Rivista della Unione Matematica Italiana*, Serie I, Vol. VII, 367–395.

[18] Molinini, D. (2014). Deductive Nomological Model and Mathematics: Making Dissatisfaction more Satisfactory. *THEORIA. An International Journal for Theory, History and Foundations of Science*, 29(2), 223–242.

[19] Molinini, D. (2013). La Spiegazione Matematica. *APhEx Portale Italiano di Filosofia Analitica*, n.7.

[20] Molinini, D. (2012). Learning from Euler. From Mathematical Practice to Mathematical Explanation. *Philosophia Scientiae*, 16(1), 105–127.

[21] Molinini, D. & Sus, A. (2010). Causality and Explanation in Physics, Biology and Economics. *The Reasoner*, 4(4), 60–61.

[22] Molinini, D. (2009). The First Sicilian School of Translators. *Nova Tellus*, 27(1), 191–205.

[23] Fariselli, P., Molinini, D., Casadio, R. & Krogh, A. (2007). Prediction of structurally determined coiled-coil domains with hidden Markov models. In Hochreiter, S. and Wagner, R. (Eds.), *Bioinformatics Research and Development*, LNBI (pp. 292–302). Berlin: Springer Verlag.

Peer-reviewed conference proceedings

[24] Molinini, D. (2014). What's the Matter with the Deductive Nomological Model? In T. Archibald (Ed.), *Proceedings of 38th Annual Meeting of the Canadian Society for History and Philosophy of Mathematics*, vol. 25 (pp. 125–136). Burnaby (CA).

[25] Molinini, D. (2010). Understanding, Visualizability and Mathematical Explanation. In Arzarello, F., Durand-Guerrier, V. and Soury-Lavergne, S. (Eds.), *Proceedings of the Sixth Congress of the European Society for Research in Mathematics Education* (pp. 181–190). Lyon: INRP.

[26] Molinini, D. (2010). Using Numbers to Drive in Nails. *Boletín de la Sociedad de Lógica, Metodología y Filosofía de la Ciencia*, Special Edition (December 2010), 14–16.

**Conference Contributions**

INVITED TALKS

[1] "Successful applicability runs both ways", OCIE Seminar in the History and Philosophy of Mathematics and Logic, Chapman University, Orange (CA, United States), September 9, 2022.

[2] "On Archimedes' mechanical method in mathematics: a new way of practicing mathematics or just another stroke of mathematical genius?", National Meeting of the SPM (Sociedade Portuguesa de Matemática), meeting held online, July 12, 2021.

[3] "Magic of mind-over-matter and matter-over-mind magic", Department of History and Philosophy of Science, University of Lisbon, Lisbon, Portugal, meeting held online, May 25, 2021.

[4] "Does matter really matter to numbers? The role of conservations laws in applications of physics to mathematics", Ghent-Brussels Seminars in Logic, History and Philosophy of Science, Centre for Logic and Philosophy of Science, Free University of Brussels, Brussels, Belgium, October 29, 2020.

[5] "Sull'applicabilità della matematica: moltiplicatori di Lagrange e prospettive sul dibattito", Department of Mathematics and Physics, University of Roma Tre, Rome, Italy, January 10, 2020.

[6] "The Applicability of Mathematics: Philosophical Issues", IUSS (Istituto Universitario di Studi Superiori), Pavia, Italy, December 19, 2019.

[7] "Applications: examples from pre-Euclean and post-Euclidean Mathematics", IUSS (Istituto Universitario di Studi Superiori), Pavia, Italy, December 17, 2019.

[8] "Applications and Applicabilities", Séminaire Mathématiques appliquées, Laboratoire SPHERE, University Paris 7, Paris, France, November 18, 2019.

[9] "Ecco perché (secondo alcuni) i numeri esistono!", conference Matematica e filosofia per un nuovo percorso formativo, Department of Mathematics, University of Salerno, Salerno, Italy, June 6, 2019.

[10] "Il perché di un perché matematico", conference Matematica e filosofia per un nuovo percorso formativo, Department of Mathematics, University of Salerno, Salerno, Italy, June 7, 2018.

[11] "History and philosophy in action: The case of the Lagrange Multipliers", Jornadas do Departamento de História e Filosofia das Ciências, Department of History and Philosophy of Sciences, University of Lisbon, Lisbon, Portugal, June 1, 2018.

[12] "Ontological Parsimony can be Pricey", workshop Mathematical and Metaphysical Explanations: New Perspectives, Institute of History and Philosophy of Sciences and Techniques (IHPST), Paris, February 2, 2017.

[13] "Is explanatory indispensability really indispensable?", Logic and Philosophy of Mathematical Practices, meeting SRP, MEC Seminar, Brussels, February 19, 2016.

[14] "Exploring the boundary between mathematics and physics: the case of the logical special relativity project", Society for Philosophy of Science in Practice (SPSP) Fifth Biennial Conference, University of Aarhus, Aarhus, Denmark, June 25, 2015.

[15] "Numeri, Elefanti e Scienza: la ricerca filosofica di una ragionevole irragionevolezza", Philosophy of Science Seminar, University of Florence, Department of Philosophy, Florence, May 15, 2015.

[16] "Towards a weakly monistic, not-radically pluralistic, account of mathematical explanation in science", WIP Seminar, University of Roma Tre, Department of Philosophy, Rome, December 10, 2014.

[17] "A reason for a mathematical reason? The problem of mathematical explanation in science and in mathematics.", Philosophy of Mind and Language Seminar, University of Milan, Department of Philosophy, Milan, December 5, 2014.

[18] "Explaining Explanation(s)", Cogito Research Centre in Philosophy Seminar, University of Bologna, Department of Philosophy, Bologna, July 8, 2013.

[19] "Evidence, Explanation, Enhanced Indispensability", Workshop *Indispensability and Explanation*, IHPST, Paris, November 19, 2012.

[20] "Venados, insectos y matemática. Más allá de la irrazonable efectividad de la matemática en biología : entre representación y explicación, Pontificia Universidad Católica del Perú, Lima, June 21, 2012.

[21] "Is there something reasonable in this unreasonable effectiveness?", *Proyecto de Excelencia 'Estudios sobre historia y filosofía de las ciencias físicas y matemáticas'*, University of Sevilla, Sevilla, July 2, 2009.

[22] "How do we explain mathematical explanation of scientific facts?", *Philosophy of Mathematics Seminar*, UNAM, Mexico City, April 10, 2008.

[23] "A perspective of continuity. Transmission and production of scientific knowledge at the court of Roger II of Sicily", *Les Sciences Mathématiques à l'Age Moderne*, Congress of the Italian Society of History of Mathematics, Institut Henri Poincaré, Paris, October 25, 2007.

TALKS WITH PAPER ACCEPTED

[24] "Proof validity in historical perspective", Hi-Phi International Conference, Department of History and Philosophy of Science, University of Lisbon, Lisbon, Portugal, June 23, 2022.

[25] "Mathematical concepts as conceptual mediators", 29th Novembertagung on the History of Mathematics (History of Mathematical Concepts and Conceptual History of Mathematics), Instituto de Matematicas de la Universidad de Sevilla (IMUS), University of Sevilla, Sevilla, November 28, 2018.

[26] "Mathematics *in* (and *for*) application: the case of Lagrange multipliers ", Workshop Mathematics and Mechanics in the Newtonian Age: Historical and Philosophical Questions, University of Sevilla, Sevilla, September 20, 2017.

[27] "Mathematical Generosity and Ontological Parsimony", SILFS 2017 Triennial International Conference, Bologna University, Bologna, June 21, 2017.

[28] "The Case of the Logical Special Relativity Project and the Ontological Status of Mathematical Objects", EBL 2014 - 17th Brazilian Logic Conference, National Laboratory for Scientific Computing (LNCC), Petropolis, Rio de Janeiro, Brazil, April 9, 2014.

[29] "How Visualization can (help) Answer(ing) Why", Workshop on Beauty and Explanation in Mathematics (WBEM), Umea University, Umea, Sweden, March 12, 2014.

[30] "A New Approach to Mathematical Explanation(s) in Science", 4th Conference of The European Philosophy of Science Association (EPSA), Helsinki, Finland, August 30, 2013.

[31] "Towards a New, Pluralist and Pragmatic, Approach to Mathematical Explanation(s)", SILFS Conference, Urbino, May 30, 2013.

[32] "A Symmetry in the Asymmetry: How explanatory asymmetries might shed light on explanations (in science and in society)", *Science, Philosophie, Société*, IVe Congrès de la Société de

Philosophie des Sciences (SPS), Université du Québec, Montréal, Canada, June 2, 2012.

[33] "What's the Matter with the Deductive Nomological Model?", annual conference of the Canadian Society for the History and Philosophy of Science (CSHPS), University of Waterloo, Waterloo, Canada, May 29, 2012.

[34] "Using Numbers to Drive in Nails", *First SLMFCE Graduate Conference*, University of Granada, Granada, Spain, September 30, 2010.

[35] "A Practice Driven approach to MEPP in terms of Conceptual Tools and Conceptual Resources", *Understanding and the Aims of Science*, Lorentz Center, Leiden, The Netherlands, June 1, 2010.

[36] "Understanding, Visualizability and Mathematical Explanation", *CERME 6 - Sixth Conference of European Research in Mathematics Education*, Lyon, France, January 29, 2009.

[37] "Learning about Mathematical Explanation in Physics from the History of Mathematics", *19th Novembertagung*, Sominestationen, Holbaek, Denmark, November 6, 2008.

[38] "The First Sicilian School of Translators", Segundo Congreso Internacional de Estudios Clásicos en México, Centro de Estudios Clásicos, UNAM (Universidad Nacional Autónoma de México), Mexico City, Mexico, September 10, 2008.

[39] "Prediction of structurally-determined coiled-coil domains with hidden Markov models", *BIRD - 1st International Conference on Bioinformatics: Research and Development*, Berlin, Germany, March 12-14, 2007.

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## Other Activities

ORGANIZATIONAL ACTIVITIES

(2022) Member of the Scientific Committee of the *Hi-Phi (History and Philosophy of Sciences) International Conference*, organized by the Interuniversity Centre for the History of Sciences and Technology (CIUHCT) and the Centre for Philosophy of Science of the University of Lisbon (CFCUL). The conference was held in Lisbon on June 23-24, 2022.

(2022) Co-organizer, with Samuel Gessner (CIUHCT, University of Lisbon), of the seminar series *Mathematical Cultures*, Department of History and Philosophy of Science, University of Lisbon.

(2018–to date) Co-organizer of the seminars within the project FCT *Emergence in the Natural Sciences: Towards a New Paradigm*, CFCUL, Department of History and Philosophy of Science, University of Lisbon.

(2017–to date) Co-organizer of the Reasoning Seminar (Epistemology & Methodology; Philosophy of the Formal Sciences), CFCUL, Department of History and Philosophy of Science, University of Lisbon.

(2013–2016) Co-organizer of the reading group WIP (Philosophy of Science), Department of Philosophy, Communication and Media Studies, University of Rome 'Roma Tre'.

(2012–2013) Co-organizer of the reading group *Scientific Realism and Causality (SRC)*, LOGOS Group, Department of Philosophy, University of Barcelona.

(2011–2012) Co-organizer of the workshop *Mathematical and Geometrical Explanations in Physics*, UAB (Autonomous University of Barcelona), Barcelona, March 9-10, 2012.

(2011–2012) Co-organizer of the reading group *Scientific Realism (SR)*, LOGOS Group, Department of Philosophy, University of Barcelona.

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| MEMBERSHIP IN PROFESSIONAL SOCIETIES | British Society for the Philosophy of Science (BSPS) |
| | Philosophy of Science Association (PSA) |
| | Società Italiana di Logica e Filosofia delle Scienze (SILFS) |
| | FilMat – Italian Network for Philosophy of Mathematics |
| | Association for the Philosophy of Mathematical Practice (APMP) |
| | Canadian Society for History and Philosophy of Mathematics (CSHPM) |
| | Canadian Society for the History and Philosophy of Science (CSHPS) |
| | Société de Philosophie des Sciences (SPS) |
| | Società Italiana di Storia delle Matematiche (SISM) |
| | Sociedad de Lógica, Metodología y Filosofía de la Ciencia en España (SLMFCE) |

THESIS SUPERVISION — Antonio Pedro Raimundo (Master thesis; Master in History and Philosophy of Science, University of Lisbon). Thesis title: 'A pureza da prova'.

Francisco Laranjinha (Master thesis; Master in History and Philosophy of Science, University of Lisbon). Thesis title: 'O problema da aplicabilidade'.

Emanuele Zanichelli (BA in Philosophy –Laurea Triennale–, Faculty of Philosophy, University Vita-Salute San Raffaele, Milano). Thesis title: 'Sul relazionarsi del cosmo: l'interpretazione relazionale della meccanica quantistica'. Defense date: 11/03/2022.

PARTICIPATION IN DOCTORAL JURIES — Sílvio Filipe Varela de Sousa (*O Transcendental Geométrico e a Percepto-Cognição*, PhD in philosophy, Universidade Nova de Lisboa, 16/03/2017)

SCIENCE COMMUNICATION — Author of 'Eureka', a series of articles on Archimedes published in the *Gazeta de Matemática* (ISSN: 0373-2681 ; journal published in Portugal by the Sociedade Portuguesa de Matemática)

Freelance journalist for the magazine *Le Scienze Web News* (ISSN 1827-8922)

## Languages

- Mother tongue: Italian
- English: fluent (speaking, reading, writing)
- French: fluent (speaking, reading, writing)
- Spanish: fluent (speaking, reading, writing)
- Portuguese: basic reading and speaking knowledge
- Catalan: basic reading and speaking knowledge

## References

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Daniele Molinini
Lisbon, 29/09/2022

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