

## **ALLEGATO B**

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. \_1\_ posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale \_11/C2 - Logica, Storia e Filosofia della Scienza\_, settore scientifico-disciplinare \_M-FIL/02 - Logica e Filosofia della Scienza\_ presso il Dipartimento di \_FILOSOFIA „PIERO MARINETTI“\_,  
(avviso bando pubblicato sulla G.U. n. \_35\_ del \_04-05-2021\_) Codice concorso \_4621\_

## **Patricia Palacios** **CURRICULUM VITAE**

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE TUTTI GLI ELEMENTI UTILI ALLA VALUTAZIONE DEI TITOLI SOTTOPOSTI AL GIUDIZIO DELLA COMMISSIONE)

### **INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

|                 |            |
|-----------------|------------|
| COGNOME         | PALACIOS   |
| NOME            | PATRICIA   |
| DATA DI NASCITA | 22.07.1985 |

### **TITOLI**

#### **TITOLO DI STUDIO**

(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

- *Master of Science in Philosophy of Science*, London School of Economics and Political Science, UK, 14 November 2014, approved with merit
- *Master in Philosophy of Science*, University of Santiago, Chile, 10 October 2013, approved with distinction.
- *Bachelor in Philosophy*, University of Chile, Chile, 8 June 2010, approved with distinction.

#### **TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO**

(inserire titolo, ente, data di conseguimento, ecc.)

- *Doctoral Degree in Philosophy*, Ludwig-Maximilian-University Munich, Munich Center for Mathematical Philosophy (MCMP), Germany, 10 July 2018, approved with “summa cum laude”. Title of the dissertation: “Phase Transitions in Science: Selected Philosophical Topics”, supervisor: Prof. Stephan Hartmann.

**ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO**  
(inserire anno accademico, ateneo, corso laurea, ecc.)

**Courses taught at the University of Salzburg:**

- *Philosophy of Economics and Social Sciences*, Advanced Seminar for undergraduate students of the program: "Philosophy, Politics and Economics". Summer Semester 2020, Summer Semester 2021 (in German).
- *Emergence and Reduction in Science*, Advanced Seminar for graduate students of the program "Master in Philosophy". Summer Semester 2019, Summer Semester 2021 (in English).
- *Philosophy of Science*, Introductory Course for undergraduate students of the programs: "Bachelor in Philosophy" and "Bachelor in Philosophy, Politics and Economics". Winter Semester 2018/2019, Winter Semester 2019/2020, Winter Semester 2020/2021 (in German).
- *Methodology of Science*, Advanced Course for undergraduate and graduate students of the programs: "Bachelor in Philosophy", "Bachelor in Philosophy, Politics and Economics", and "Master in Data Science". Winter Semester 2018/2019, Winter Semester 2019/2020 (in German).

**Courses taught at the Munich Center for Mathematical Philosophy (MCMP), LMU Munich:**

- *Emergence and Reduction in Science*, Advanced Seminar for graduate students of the program "Master in Logic and Philosophy of Science". Winter Semester 2017/2018 (in English).

**Courses taught at other institutions:**

- *Philosophical Problems in Thermodynamics and Statistical Mechanics*, Course for graduate students of the program "Diploma en Filosofía de las Ciencias" (e-learning), Instituto de Filosofía y Ciencias de la Complejidad, Santiago, Chile, Summer Semester 2016, IFICC. (in Spanish)
- *Philosophy of Language*, Undergraduate Course for students of the program "Bachelor in Philosophy", Summer Semester 2013, Universidad Alberto Hurtado, Santiago, Chile (in Spanish).
- *Philosophy, Relativity and Quantum Mechanics*, Advanced Course for students of the program "Diploma en Filosofía de las Ciencias", Winter Semester 2012, Universidad Alberto Hurtado, Santiago, Chile (in Spanish).
- *Philosophy of Science*, Advanced Course for students of the program "Diploma en Filosofía de las Ciencias", Summer Semester 2012, Summer Semester 2013, Universidad Alberto Hurtado, Santiago, Chile (in Spanish).
- *Logical Reasoning*, Undergraduate Course for students of the program "Bachelor in Economics", Winter Semester 2011, Summer Semester 2012, Winter Semester 2012, Universidad Adolfo Ibanez, Santiago, Chile (in Spanish).
- *Introduction to Logic*, Undergraduate Course for students of the program "Bachelor in Music", Summer Semester 2011, Winter Semester 2011, Summer Semester 2012, Winter Semester 2012, Universidad Andrés Bello, Santiago, Chile (in Spanish).

### Summer School Teaching:

- *Emergence and Reduction in Science*, Lecture Stream at the Summer School on Mathematical Philosophy for Female Students 2021 (scheduled 19-23 July 2021)
- *On the Use of Universality Arguments in Black Hole Physics*, Lecture at the XXIV Urbino Summer School in Philosophy of Physics (scheduled 8 June 2021)
- *Can Physics Explain Economics?*, Lecture at the Summer School on Mathematical Philosophy for Female Students, Munich, Germany, July, 2018
- *Philosophical Problems Raised by Phase Transitions*, Lecture at the Summer School on Mathematical Philosophy for Female Students, Munich, Germany, July 31, 2017
- *Emergence and Reduction in Physics*, Lecture at the Summer School on Mathematical Philosophy for Female Students, Munich, Germany, July 29, 2016
- *Infinite Idealizations in Physics*, S Lecture at the Summer School on Mathematical Philosophy for Female Students, Munich, Germany, July 31, 2015

### Students' Supervision:

- Gregorie Dupuis-McDonald (PhD student), working title of the thesis "Three problems in migration science: A complex-systems approach to the problems of evidence, prediction and causality" (in progress)
- Hamid Mirhosseini (PhD Student), working title of the thesis "Faithfulness in Scientific Representation" (in progress)
- Johnathan Parnell (Master Student), title of the thesis: "The Compatibility of the GRW, Bohmian, and Everettian Interpretations of Quantum Mechanics with Wave Function Realism" (in progress)
- Laura Christina Gehmayr (Bachelor Student), title of the thesis: "Are Random Control Trials the new Gold-standard in development economics"?, completed in the Summer Semester 2021.
- Michael Haiden (Bachelor Student), title of the thesis: "Reduction in International Relations Theory: Applications and Difficulties", completed in the Summer Semester 2019.
- Korbinian Kiendl (Bachelor Student), title of the thesis: "Emergence in psychology: decision framing", completed in the Summer Semester 2019.

**DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO QUALIFICATI ISTITUTI ITALIANI O STRANIERI;**

*(inserire anno accademico, ente, corso, ecc.)*

- Ernst Mach Grant - worldwide for the project "Phase Transitions in Finite Systems", September 2017-June 2018, University of Salzburg, Austria (9.000 Euros)
- Visiting fellowship sponsored by the National Science Foundation Grant No. 1328172 to work as visiting assistant researcher for the project "Comprehending and Regulating Financial Crises", University of California, Irvine, January 2016-April 2016 (5.000 dollars)
- Visiting fellowship at the Minnesota Center for Philosophy of Science, University of Minnesota, US, April-May 2017.
- Visiting fellowship at the University degli Studi Firenze to work with Lapo Casetti, Department of Physics and Astronomy, October 2017 (600 Euros).
- Exchange Program in Philosophy and Physics at the University of Leipzig, October 2008-July 2009 (5.000 Euros).

**DOCUMENTATA ATTIVITÀ IN CAMPO CLINICO**

*(indicare, data, durata, ruolo, ente presso il quale si è prestata attività assistenziale, ecc.)*

**REALIZZAZIONE DI ATTIVITÀ PROGETTUALE**

*(indicare, data, progetto, ecc.)*

- Ernst Mach Grant for the postdoc Valeriya Chasova (Grant Supervisor) on the project "Ontology of symmetries reconsidered: rethinking past studies, new empirical statuses, and their links", March 2021 - February 2022 from the Oesterreichische Akademische Austauschdienst (OeAD), Salzburg, Austria (10.350 Euro)
- Ernst Mach Grant for the PhD candidate Núria Munoz (Grant Supervisor) on the project "Philip Anderson and the development of emergence in physics", March 2021 - May 2021 from the Oesterreichische Akademische Austauschdienst (OeAD), Salzburg, Austria (9.400 Euros)
- Ernst Mach Grant for the project "Phase Transitions in Finite Systems" (Grant Recipient), September 2017-June 2018 from the Oesterreichische Akademische Austauschdienst (OeAD), Salzburg, Austria. (9.400 Euros)
- Assistant researcher for the project "Comprehending and Regulating Financial Crises", National Science Foundation Grant No. 1328172 (Co-Principal investigator: Prof. James O. Weatherall), January 2016-April 2016. University of California, Irvine. (5.000 Dollars)

## ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI, O PARTECIPAZIONE AGLI STESSI

(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)

### Research Networks:

- “Category Theory in Philosophy of Science” (DFG Scientific Networks Grant). Research member, July 2018- September 2021. <https://www.cattheoryphilsci.philosophie.uni-muenchen.de/index.html>
- “Irvine-London-Munich-Polimi-Salzburg Network in Philosophy and Foundations of Physics”. Local coordinator, from September 2018 onwards. <https://ilmpsnetwork.wordpress.com/ilmps/>
- “Physics meets Philosophy in Vienna”. Research member, from November 2019 onwards. <https://wienerkreis.univie.ac.at/kooperationsnetzwerk/physics-meets-philosophy-in-vienna/>

### Editorial Work:

- Associate Editor, Journal *Foundations of Physics*, Springer, since November 2019
- Guest Editor, “Infinite Idealizations in Science”, Special Issue, *Synthese*, 196(5), 2019. [Co-Edited with Samuel Fletcher, Laura Ruetsche, and Elay Shech]
- Guest Editor, “*Surrogative Reasoning in the Sciences*”, Topical Collection, *Synthese*, December 2021. [Co-Edited with Rawad El Skaf, Laura Felling and Giovanni Valente] (forthcoming)

### Organization of workshops and conferences:

- Workshop “Causation and Complexity”, Salzburg, Austria, July 1-2, 2022 [scheduled].
- Symposium in Epistemology and Philosophy of Science at the VII Chilean Conference in Philosophy, Concepción, Chile, October 3-4 2021 [scheduled]
- Workshop “Irvine-London-Munich-Polimi-Salzburg Conference in Philosophy and Foundations of Physics”, Salzburg, Austria, September 2-3, 2019.
- Workshop “Irvine-Munich-Polimi-Salzburg Conference in Philosophy and Foundations of Physics”, Salzburg, Austria, September 3-4, 2018.
- Workshop “Explanation, Multiscale Models and Multiple Realizability”, Valparaíso, Chile, March 5-8 2018.
- Workshop “With and without measure: symmetry and symmetry breaking” Workshop, Munich, Germany, June, 2017.
- Workshop “Explanation, Idealization and Causation” Workshop, Munich, Germany, May 27, 2017.
- Workshop “Infinite Idealizations in Science”, MCMP, Munich, Germany, June 8-9, 2016.
- Workshop “Reduction in Physics and Biology”, Santiago, Chile, January 4-6, 2016.
- Workshop “Ontology of Fundamental Physics”, Santiago, Chile, December 9, 2015.
- 1° Munich Graduate Workshop in Mathematical Philosophy: Philosophy of Physics, MCMP, Munich, Germany, April 9-11, 2015.

## Memberships:

- Foundational Questions Institute [FQXi](#), Regular member
- Munich Center for Mathematical Philosophy ([MCMP](#)), External member.
- Chilean Society of Philosophy of Science ([SOCHIFIC](#)), Co-founder and regular member.
- Instituto de Filosofía y Ciencias de la Complejidad ([IFICC](#)), Regular member.

## TITOLARITÀ DI BREVETTI

(per ciascun brevetto, inserire autori, titolo, tipologia, numero brevetto, ecc.)

## ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI

(inserire titolo congresso/convegno, data, ecc.)

### Invited talks:

1. “Non-equilibrium Thermodynamics and the Free Energy Principle in Biology”, Active Inference Livestream. [activeinference.org/](https://activeinference.org/), October 19, 2021 [scheduled].
2. “Re-defining equilibrium for long-range interacting systems”, New Directions in the Foundations of Physics, Viterbo, Italy, 2020/2021, June 26, 2021 [scheduled]
3. “Approximation methods and the autonomy of effective (field) theories”, workshop ‘Approximation Methods’, Berlin, Germany, 10 June, 2021 [scheduled]
4. “Re-defining equilibrium for long-range interacting systems”, Foundations of Physics 2020/2021, May 2021 [scheduled]
5. “The Paradox of Infinite Limits: a Realist Response”, Bristol Center for Science and Philosophy, Bristol, UK, May 11, 2021.
6. “The Paradox of Infinite Limits: a Realist Response”, LSE Sigma Club, London, UK, May 10, 2021
7. “The Paradox of Infinite Limits: a Realist Response”, Mini-Workshop on Infinities and Idealizations in Physics, Harvard Foundations Of Physics series, USA, April 27, 2021.
8. “Can physics tell us something about democracy?”, Complexity Science Hub Vienna, September 25, 2020.
9. “¿Qué pueden enseñarnos las ciencias de la complejidad sobre física y democracia”, Sociedad Platónica, Santiago, Chile, July 2020
10. “Re-defining equilibrium for long-range interacting systems”, Colloquium Philosophy of Physics, Oxford, UK, October 2019.

11. "Intertheoretic Reduction beyond the Nagelian model", Bergen Seminar Philosophy of Science, Bergen, Norway, August 2019.
12. "On the universality of Hawking radiation", Black Hole Initiative, Harvard University, Boston, USA, May 2019.
13. "Re-defining equilibrium for long-range interacting systems", FraMEPhys, Birmingham, UK, May 2019.
14. "On the universality of Hawking radiation", Geneva Symmetry Group, Geneva, Switzerland, May 2019.
15. "Re-defining equilibrium for long-range interacting systems", Geneva Symmetry Group, Geneva, Switzerland, May 2019.
16. "Emergent symmetry breaking in finite systems: philosophical aspects", Conference "Symmetry-breaking vs symmetry-preserving many-body schemes" at Saclay, France, May 2019
- 17.- "Re-defining equilibrium for long-range interacting systems", PhilSci Colloquium, Stockholm, Sweden, April 2019.
- 18.- "Topics in Philosophy of Physics: Emergence and Reduction in Condensed Matter Physics", Kolloquium zur Chemie und Physik der Materialien, Salzburg, Austria, April 2019.
- 19.- "Can Physics Tell Us Why (and When) Stable Democratic Systems May be Undesirable?", Workshop Philosophy at Work, Munich, Germany, March 2019.
20. "Can Physics Tell Us Why (and When) Stable Democratic Systems May be Undesirable?", at the Institute for Quantum Optics and Quantum Information Vienna (IQOQI) Vienna, Austria, November 2018.
21. "Emergence and Reduction in Condensed Matter Physics", Talk in the Seminar Research Group "HEFTP", Max Planck Institute, Berlin, Germany, September 2018.
22. "Re-defining Equilibrium for Long-range Interacting Systems", Time In Physics Workshop, Salzburg, Austria, September 2018
23. "Can Physics Tell Us Why (and When) Stable Democratic Systems May be Undesirable?", Munich-Hannover Workshop in Philosophy of Science, Munich, Germany, May 2018,
24. "Do Scale Invariant Models Explain?: From Traffic Jams to Democratic Systems", Workshop: How stable are democracies? Complex systems Perspectives on Modern Society, Bristol, UK, January 12-13, 2018
25. "On the Aims of Limiting Reduction", Workshop: New Perspectives on Inter-theory reduction, University of Salzburg, Austria, November 26, 2017
26. "Phase Transitions: A Challenge for Reductionism?", WIP seminar, University of Salzburg, Austria, November 6, 2017
27. "Market Crashes as Critical Phenomena? Explanation, Idealization, and Universality in Econophysics", University of Bristol, UK, October 18, 2017
28. "Market Crashes as Critical Phenomena? Explanation, Idealization, and Universality in Econophysics", University of Florence, Italy, October 10, 2017
29. "Philosophical Problems Raised by Phase Transitions", Seminario Permanente de Filosofía de las Ciencias, University of Chile, Santiago, Chile, August 16, 2017
30. "Symmetry-Breaking Phase Transition: A challenge for Reductionism?", Workshop: Symmetry and Asymmetry in Physics, Hannover, Germany, July 2017

31. "Phase Transition: A challenge for Reductionism?", Workshop: The infinite limit and phase transitions, Louvain-la-Neuve, Belgium, June 23, 2017
32. "Had We But World Enough, and Time: Justifying the Thermodynamic and Infinite-Time Limits in Statistical Mechanics", Workshop: Tatjana Afanassjewa and her legacy: new perspectives on irreversibility, Salzburg, Austria, June 17, 2017
33. "Had We But World Enough, and Time: Justifying the Thermodynamic and Infinite-Time Limits in Statistical Mechanics", Workshop: Explanation, Idealization and Causation, Munich, Germany, May 27, 2017
34. "Market Crashes as Critical Phenomena?", University of St. Thomas, Minneapolis, USA, April 13, 2017
35. "Phase Transition: A challenge for Reductionism?", Philosophy Colloquium University of Queensland, Brisbane, Australia, March 17, 2017
36. "Symmetry-breaking phase transition: A challenge for reductionism?", Workshop: Symmetry and Symmetry-breaking in Physics, University Paris-6, Paris, France, Dec 2, 2016
- 37.- "Emergence and Reduction in Physics", Philosophy Colloquium, Universidad de Buenos Aires, Buenos Aires, Argentina, Oct 7, 2016
38. "The Role of Approximation in a Reductive Explanation for Phase Transitions", University of California, San Diego, USA, March 9, 2016
39. "The Role of Approximation in a Reductive Explanation for Phase Transitions", Southern California Philosophy of Physics Seminar, University of California, Irvine, USA, January 16, 2016
40. "The Role of Approximation in a Reductive Explanation for Phase Transitions", Workshop: Reduction in Physics and Biology, Santiago, Chile, January 5, 2016
41. "The Role of Approximation in a Reductive Explanation for Phase Transitions", University of Oxford, Oxford, UK, October 22, 2015

## Contributed Talks

1. "Analogical Reasoning in Econophysics", PSA Conference 2020/2021, Baltimore, USA, 11-14 Nov. 2021 [scheduled].
2. "Thought experiments vs. Analogue experiments: The case of black holes", Foundations of Physics 2020/2021 Conference, Paris, France, 28-30 November 2021
3. "On the Universality of Hawking Radiation", EPSA Conference, Geneva, September 2019.
4. "Market Crashes as Critical Phenomena? Explanation, Idealization, and Universality in Econophysics", XXIV. Kongress der deutschen Gesellschaft für Philosophie, September 25, 2017
5. "Had We But World Enough, and Time: Justifying the Thermodynamic and Infinite-Time Limits in Statistical Mechanics", Jornadas Rolando Chuaqui, Valparaíso, Chile, August 23, 2017
6. "Market Crashes as Critical Phenomena? Explanation, Idealization, and Universality in Econophysics", MUST 10 Causation and Complexity Conference, Sydney, Australia, March 2017
7. "Phase Transitions: A challenge for reductionism or for 'Nagelianism'?" Foundations of Physics Conference, LSE, UK, July 16, 2016
8. "Giving Econophysics a Chance: On the Plausibility of Modeling Stock Market Crashes as Critical Phase Transitions", Workshop Infinite Idealizations in Physics, Munich, Germany, June 9, 2016
9. "The Role of Approximation in a Reductive Explanation for Phase Transitions", Irvine-Princeton-Pittsburgh Conference, Pittsburgh, USA, April 1, 2016



10. "The Role of Approximation in a Reductive Explanation for Phase Transitions", Workshop Effective Theories, Mixed Scale Modeling, and Emergence, Pittsburgh, USA, October 2, 2015
- 11.- "Do RG methods provide a reductive explanation for phase transitions?", 15th Congress of Logic, Methodology and Philosophy of Science, CLMPS 2015, Helsinki, Finland, August 6, 2015
12. "Do RG methods explain continuous phase transitions?" 1° Munich Graduate Workshop in Mathematical Philosophy: Philosophy of Physics, MCMP, Munich, Germany, April 10, 2015
13. "On the role of infinite idealizations in QFT", Workshop Re-thinking foundations of physics, Dorfgastein, Austria, April 3, 2015

**CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA**  
*(inserire premio, data, ente organizzatore, ecc.)*

**Awards/Scholarships**

- DAAD Scholarship to undertake Ph.D in Philosophy, 2016-2018 (30,000 Euros)
- Beca Chile Scholarship to undertake Ph.D in Philosophy, 2014 (18,000 each year)
- Beca Chile Scholarship to undertake MSc. in Philosophy of Science at the London School of Economics, 2013 (35,000 Euros)
- Best Student Award, University of Santiago, Chile, 2012
- Exchange Program scholarship at the University of Leipzig (5000 Euros)
- Master Merit award, University of Santiago, Chile, 2010 (1000 Euros)
- Goethe-Institut/DAAD Scholarship, Mannheim, Germany, 2008. (1000 Euros)

**POSSESSO DEL DIPLOMA DI SPECIALIZZAZIONE EUROPEA RICONOSCIUTO DA BOARD INTERNAZIONALI**  
*(relativamente a quei settori concorsuali nei quali è prevista)*  
*(indicare diploma, data di conseguimento, ecc.)*

**TITOLI DI CUI ALL'ARTICOLO 24 COMMA 3 LETTERA A) E B) DELLA LEGGE 30 DICEMBRE 2010, N. 240**  
*(indicare se contratto di tipologia A o B, Ateneo, data di decorrenza e fine contratto, ecc.)*

- *Tenure-track Assistant Professor* (Universität Assistant B1) at the Department of Philosophy (KGW), University of Salzburg. From October 1, 2018 to September 30, 2024 (promotion with tenure is granted at the end of the contract conditioned on the Austrian National Habilitation). Based on the "Tabella di corrispondenza tra posizioni accademiche italiane ed estere" published by the Ministero dell'Istruzione, dell'Università e della Ricerca on 01-09-2016, this tenure-track position is equivalent to Ricercatore di tipo A.

## **PRODUZIONE SCIENTIFICA**

### **PUBBLICAZIONI SCIENTIFICHE**

(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

#### **Publications in Peer-Reviewed Journals and Peer-Reviewed Volumes:**

1. "On the Universality of Hawking Radiation" [with K. Thebault and S. Gryb], *The British Journal for the Philosophy of Science* (forthcoming). DOI:10.1093/bjps/axz025
2. "The Paradox of Infinite Limits: A Realist Response" [with G. Valente], in T. D. Lyons & P. Vickers (eds.), *Contemporary Scientific Realism and the Challenge from the History of Science*, Oxford University Press, pp. 312-349 (forthcoming). ISBN: 9780190946814
3. "Intertheoretic Reduction in Physics Beyond the Nagelian Model", in C. Soto (ed.), *Current Debates in Philosophy of Science: In Honor of Roberto Torretti*, Synthese Library Series, Springer (forthcoming)
4. "¿Qué Pueden Enseñarnos las Ciencias de la Complejidad sobre Política y Democracia?" [with David García], *Estudios Públicos* 162 (2021), 7-29. DOI: <https://doi.org/10.38178/07183089/1717201115>
5. "Ehrenfest and Ehrenfest-Afanassjewa on Statistical Mechanics: The Ergodic Hypothesis", in Uffink et al. (eds.), *Tatjana Afanassjewa and her Legacy: Philosophical Developments to the Work of a Great Mathematical Physicist*. Women in the History of Philosophy and Sciences, vol 7. Springer (2021), pp 101-120. DOI: [https://doi.org/10.1007/978-3-030-47971-8\\_5](https://doi.org/10.1007/978-3-030-47971-8_5). Print ISBN: 978-3-030-47970-1
6. "What Science can do for Democracy - A Complexity Science Approach" [with K. Wiesner, T. Eliassi-Rad, H. Farrell, D. Garcia, S. Lewandowsky, D. Ross, D. Sornette and K. Thébault], *Humanities Social Sciences Communications* 30(7) (2020). DOI: <https://doi.org/10.1057/s41599-020-0518-0>
7. "Phase Transitions: A Challenge for Intertheoretic Reduction?", *Philosophy of Science*, 86 (4): 612-640 (2019).
8. - "Infinite Idealizations in Science: an Introduction". [with S. Fletcher, L. Ruetsche, L., and E. Shech. *Synthese*, 196(5), 1657-1669 (2019). DOI: <https://doi.org/10.1007/s11229-018-02069-6>
9. "Stability of Democracies - A Complex System Perspective" [with K. Wiesner, A. Birdi, T. Eliassi-Rad, H. Farrell, D. Garcia, S. Lewandowsky, D. Ross, D. Sornette and K. Thébault], *European Journal of Physics* (2018), DOI: 10.1088/1361-6404/aaeb4d.
10. "Stock Market Crashes as Critical Phenomena?: Explanation, Idealization and Universality in Econophysics" [with J. Jhun and J. Weatherall], *Synthese*, 195(10), 4477-4505 (2018). DOI: <https://doi.org/10.1007/s11229-017-1415-y>
11. "Had We But World Enough and Time... But We Don't! Justifying the Thermodynamic and Infinite-time Limits in Statistical Mechanics", *Foundations of Physics*, 48(5), 526-541 (2018). DOI: <https://doi.org/10.1007/s10701-018-0165-0>

**Edited collections:**

- “Infinite Idealizations in Science”, Special Issue, *Synthese*, 196(5), 2019. [With Samuel Fletcher, Laura Ruetsche, and Elay Shech]
- “Surrogate Reasoning in the Sciences”, Topical Collection, *Synthese*, December 2021. [with Rawad El Skaf, Laura Felling and Giovanni Valente] (forthcoming)

**Books:**

- “Emergence and Reduction in Physics”, under contract with Cambridge University Press, submitted in February 2021, expected publication: Fall 2021.

**Book Reviews:**

- Book Review of “Chance and Temporal Asymmetry”, Alistair Wilson (ed.), *International Studies in the Philosophy of Science*, 3(2), 2016. DOI: <https://doi.org/10.1080/02698595.2016.1265865>

**Under Review and commissioned book chapters:**

- “Non-equilibrium Thermodynamics and the Free Energy Principle in Biology” [with Matteo Colombo], re-submitted after revisions to *Biology and Philosophy (BIPH)*.
- “Statistical Mechanical models: From Physics to the Special Sciences” invited contribution to *The Routledge Handbook of Philosophy of Scientific Modeling*, edited by T. Knuuttila, N. Carrillo and R. Koskinen.

Date: June 2. 2021

# ACADEMIC ELEMENTS AUTHOR AGREEMENT



# CAMBRIDGE UNIVERSITY PRESS

EFFECTIVE DATE: 12 November 2019

BETWEEN:

1 The Chancellor, Masters, and Scholars of the University of Cambridge acting through its department:  
Cambridge University Press  
University Printing House  
Shaftesbury Road  
Cambridge CB2 8BS  
UK  
(‘Cambridge’)

AND:

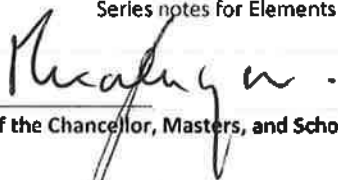
2 Professor Patricia Palacios  
Department of Philosophy  
University of Salzburg  
Kapitelgasse 4-6  
5020 Salzburg  
Austria  
  
patricia.palacios@sbg.ac.at  
(individually and/or collectively, the ‘Author’)  
(each a ‘Party’ and, together, the ‘Parties’)

## BACKGROUND:

- A Cambridge publishes multiple series of concise, original, authoritative, and peer-reviewed pieces of work, (each piece of work an ‘Element’ or, together, ‘Elements’), in digital format, as part of a short-format publishing program called “Cambridge Elements”.
- B Each series is edited by leading experts in the field who are responsible for commissioning content for publication.
- C This Agreement pertains to the production and publication of a new Element for publication in a Cambridge Elements series entitled:  
**Philosophy of Physics** (the ‘Series’) edited by Professor James Weatherall (the ‘Series Editor(s)’)
  - D The new Element for publication in the Series shall be written by the Author, in accordance with the terms of this Agreement, and is provisionally entitled:  
**Reduction and Emergence in Physics**  
(the ‘Work’)

Cambridge and the Author hereby accept and agree to the terms of this Agreement, which incorporates the following attached Sections:

SECTION I: Specific terms and conditions  
SECTION II: Standard terms and conditions  
ANNEX A: Series notes for Elements authors

SIGNED:   
for and on behalf of the Chancellor, Masters, and Scholars of the University of Cambridge acting through its department, Cambridge University Press

SIGNED:   
Professor Patricia Palacios

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

Fakultät für Philosophie, Wissenschaftstheorie und Religionswissenschaft

**URKUNDE**

**über die Verleihung des Doktorgrades**

Unter der Präsidentschaft des Professors für Finanzwissenschaft

Dr. rer. pol. Bernd Huber

und dem Dekanat des Professors für Philosophie

Dr. phil. Axel Hutter

wird

**Frau Patricia Paulina Palacios Palacios**

geb. am 22.07.1985 in Santiago, Chile

der Grad eines

**Doktors der Philosophie**

(doctor philosophiae)

verliehen,

nachdem sie in ordnungsgemäßem Promotionsverfahren durch die Dissertation

„Phase Transitions in Science:  
Selected Philosophical Topics“

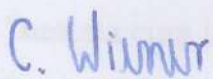
sowie durch die mündliche Prüfung  
ihre wissenschaftliche Befähigung am 10.07.2018 erwiesen  
und dabei das Gesamturteil

„summa cum laude“

erhalten hat.

München, den 16. März 2020

  
Präsident

  
Prof. Dr. Claudia Wiener  
Vorsitzende  
des Promotionsausschusses

  
Dekan

**CERTIFICATO  
del titolo di dottorato**

sotto la presidenza del professore di economia finanziaria  
**Direttore in scienze politiche Bernd Huber**

ed del decanato il professore di filosofia  
**Dottore in lettere e filosofia Alex Hutter**

viene rilasciato alla

**Sig.ra Patricia Paulina Palacios Palacios**

nata a Santiago (Cile) il 22.07.1985

il titolo di

**Dottore in Lettere e Filosofia**  
(doctor philosophiae)

in seguito alla regolare procedura di dottorato  
ove ha dimostrato le sue competenze scientifiche  
con la dissertazione

“Phase Transitions in Science:

Selected Philosophical Topics”

nonché da prova orale sostenuta in data 10.07.2018,  
valutazione

“summa cum laude”

Monaco, 16 marzo 2020

Presidente

Prof. Dr. Claudia Wiener  
Presidente della  
commissione di dottorato

Decano





L'anno 2021 il giorno 12 del mese di 05

An 2021 luna 05

Nella Cancelleria del Giudice di Pace di Salerno

În fata Grefierului Judecătorului de Pace din Salerno

Avanti al sottoscritto Funzionario è comparso il Perito/Consulente Tecnico del Tribunale Penale e Civile di Salerno, il Sig. Enciu Vasile Marius, nato il 18/06/1983 e residente in Salerno, con la carta d'identità CA36746AU rilasciata il 19/02/2018 a Salerno il quale chiede di asseverare con giuramento la traduzione che precede.

Pertanto, invitato il predetto C.T. a giurare sulla seguente formula "Giuro di aver bene e fedelmente adempiuto all'incarico affidatomi al solo scopo di far conoscere la verità.

Il C.T. pronuncia le parole: "Lo giuro..."

Sa prezentat, Subsemnatul ENCIU VASILE MARIUS, interpret si traducator autorizat pentru limba straina Romana/Italiana si Italiana/Romana in temeiul autorizatiei nr. 1132 din data de 30.11.2011, eliberata de Judecatoria din Salerno si Camera de Comert din Salerno, certific exactitatea traducerii efectuate din limba Italiana in limba Romana, ca textul prezentat a fost tradus complet, fara omisiuni, si ca, prin traducere, inscrisului nu i-au fost denaturate continutul si sensul. Inscrisul a carui traducere se solicita in intregime/in extras are, in integralitatea sa.

Traducerea inscrisului prezentat are un numar de pagini.

Traducatorul Autorizat, pronunță următoarele cuvinte: „Jur...”



T. / Interpret si Traducator Autorizat

**Marius Enciu**  
N° 1132  
TRADUTTORE  
GIURATO

Il Funzionario /Grefierul



IL FUNZIONARIO GIUDIZIARIO  
Anna Romeo



Dichiarazione ai fini dell'esenzione fiscale: Si dichiara che il presente atto in base al D.P.R. 26/10/1972 n. 642 e successive modificazioni è esente da bollo e diritti

**TRADUZIONI GIURATE TRADUCEM**  
**OFFICIAL TRANSLATORS & INTERPRETERS**

Certified and sworn translators accredited by the Court of Salerno (Italy)

**Mr. Marius Enciu**

**P. IVA: 04992200651**

**info@traduzionigiuratetraducem.it - www.traduzionigiuratetraducem.it**

**Whatsapp & Cell.: (+39) 371 17 49 592 Cell.: (+39) 331 79 38 134**

**Operational headquarters: ON THE ITALIAN TERRITORY**

**Registered office: SALERNO - Via Dei Principati, 77 - 84122 (SA)**

Registration into the List of Experts, and Experienced Interpreters and Translators of the Chamber of Commerce of Salerno, registration no. 1132

Registration into the Association of Technical Experts Interpreters, and Translators of the Criminal and Civil Court of Salerno, registration no. 107



## APOSTILLE

(convention de La Haja du 5 octobre 1961)

1. Stato: ITALIA

Il presente atto pubblico

2. è stato firmato da ANNA ROMEO

3. in qualità di: CANCELLIERE

4. è munito del sigillo/bollo Ufficio del Giudice di Pace di Salerno

Attestato

5. in SALERNO

6. Il 12.05.2021

7. da PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE DI  
SALERNO

8. col numero 952/2021

9. sigillo/ timbro/dell'ufficio legalizzazioni

10. Firma.



Procuratore della Repubblica Aggiunto  
**Rocco Alfano**





*Patricia Paulina Palacios*

having completed the approved course of study  
and passed the examinations has this day been awarded  
by the London School of Economics and Political Science a

**Master of Science**

with Merit

in the following field of study

**Philosophy of Science**

Director, The London School of  
Economics and Political Science

Chairman of Court and Council

Date of Award: 12 November 2014

LSE

**Patricia Paulina Palacios**

dopo aver completato il corso di studi  
e aver superato gli esami ha ottenuto  
dalla London School of Economics and Political Science un

**Master di Scienze**

con Merito

nel seguente campo di studi

**Filosofia della Scienza**

Direttore, La London School of  
Economics and Political Science

Presidente della Corte e del Consiglio

Data del Riconoscimento: 12 Novembre 2014



M.334 Cron.

L'anno 2021 il giorno 17 del mese di 05

The year 2021 day 17 and month 05

Nella Cancelleria del Tribunale di Salerno

In the Court Registry of Salerno

Avanti al sottoscritto Funzionario è comparso il Perito/Consulente Tecnico del Tribunale Penale e Civile di Salerno, il Sig. Enciu Vasile Marius, nato il 18/06/1983 e residente in Salerno, con la carta d'identità CA36746AU rilasciata il 19/02/2018 a Salerno il quale chiede di asseverare con giuramento la traduzione che precede.

Pertanto, invitato il predetto C.T. a giurare sulla seguente formula "Giuro di aver bene e fedelmente adempiuto all'incarico affidatomi al solo scopo di far conoscere la verità.

The undersigned Vasile Marius Enciu born in Constanta, date of birth 18/06/1983, identification card no.: N. CA36746AU, issued on 19/02/2018 in Salerno professional interpreter and translator at the Court of Criminal and Civil Law of Salerno (Italy), to registered in the Civil and Criminal Court of Salerno from 30.11.2011, with the number 1132, certifies:

Therefore, the aforementioned C.T. was invited to swear on the following formula "I swear I well and faithfully fulfilled the assignment entrusted to the sole purpose of making known the truth."

Il C.T. pronuncia le parole: "Lo giuro..."

The C.T. pronounces the following words: "I swear..."



Il Funzionario / The Officer



Il Funzionario

dott. Pietro Ros...



Dichiarazione ai fini dell'esenzione fiscale: Si dichiara che il presente atto in base al D.P.R. 26/10/1972 n. 642 e successive modificazioni è esente da bollo e diritti

**TRADUZIONI GIURATE TRADUCEM  
OFFICIAL TRANSLATORS & INTERPRETERS**

Certified and sworn translators accredited by the Court of Salerno (Italy)

**Mr. Marius Enciu**

P. IVA: 04992200651

[info@traducentraduzioni.it](mailto:info@traducentraduzioni.it) - [www.traducentraduzioni.it](http://www.traducentraduzioni.it)

Whatsapp & Cell.: (+39) 371 17 49 592 Cell.: (+39) 331 79 38 134

Operational headquarters: **ON THE ITALIAN TERRITORY**

Registered office: **SALERNO - Via Dei Principati, 77 - 84122 (SA)**

Registration into the List of Experts, and Experienced Interpreters and Translators of the Chamber of Commerce of Salerno, registration no. 1132

Registration into the Association of Technical Experts Interpreters, and Translators of the Criminal and Civil Court of Salerno, registration no. 107



## APOSTILLE

(convention de La Haja du 5 octobre 1961)

1. Stato: ITALIA

Il presente atto pubblico

2. è stato firmato da PIETRO ROSSI

3. in qualità di: CANCELLIERE

4. è munito del sigillo/bollo Tribunale di Salerno

Attestato

5. in SALERNO

6. Il 17.05.2021

7. da PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE DI SALERNO

8. col numero 983/2021

9. sigillo/timbro dell'ufficio legalizzazioni

10. Firma.

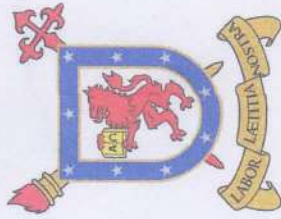


Procuratore della Repubblica Aggiunto

**Rocco Alfano**







# UNIVERSIDAD DE SANTIAGO DE CHILE

Conforme a lo dispuesto en el DFL N° 149 de 1981, del Ministerio de Educación y en decreto universitario N° 949 de 2006, certifico que con fecha 10 de octubre de 2013 se confirió a doña:

*Patricia Paulina Palacios Palacios*

RUT N° 16.018.147-8, el Grado de:

*Magíster en Filosofía de las Ciencias*

*Aprobado con Distinción*

Inscrito en los registros de esta Corporación con el N° de Rol 101.152

Extendido para acreditar la posesión del grado respectivo.

Santiago, 07 de enero de 2014.

GUSTAVO ROBLES LABARCA  
SECRETARIO GENERAL



Este documento es válido sólo en original.



# UNIVERSITÁ DI SANTIAGO DEL CILE

Conformemente al DFL N° 149 del 1981, del Ministero dell'Istruzione e al decreto universitario N° 949 del 2006, certifico che in data 10 ottobre 2013 è stato conferito alla Signora:

**Patricia Paulina Palacios Palacios**

RUT N° 16.018.147-8, il Grado di:

Master in Filosofia della Scienza

Superato con Lode

Iscritto nei registri di questa Corporazione con il N° di Rol 101.152

Esteso per attestare il possesso del rispettivo grado

Santiago, 7 Gennaio 2014

GUSTAVO ROBLES LABARCA  
SEGRETARIO GENERALE

Questo documento è valido solo in originale



M.333EROM.

L'anno 2021 il giorno 17 del mese di 05The year 2021 day 17 and month 05Nella Cancelleria del Tribunale di SalernoIn the Court Registry of Salerno

Avanti al sottoscritto Funzionario è comparso il Perito/Consulente Tecnico del Tribunale Penale e Civile di Salerno, il Sig. Enciu Vasile Marius, nato il 18/06/1983 e residente in Salerno, con la carta d'identità CA36746AU rilasciata il 19/02/2018 a Salerno il quale chiede di asseverare con giuramento la traduzione che precede.

Pertanto, invitato il predetto C.T. a giurare sulla seguente formula "Giuro di aver bene e fedelmente adempiuto all'incarico affidatomi al solo scopo di far conoscere la verità.

The undersigned Vasile Marius Enciu born in Constanta, date of birth 18/06/1983, identification card no.: N. CA36746AU, issued on 19/02/2018 in Salerno professional interpreter and translator at the Court of Criminal and Civil Law of Salerno (Italy), to registered in the Civil and Criminal Court of Salerno from 30.11.2011, with the number 1132, certifies:

Therefore, the aforementioned C.T. was invited to swear on the following formula "I swear I well and faithfully fulfilled the assignment entrusted to the sole purpose of making known the truth."

Il C.T. pronuncia le parole: "Lo giuro..."

The C.T. pronounces the following words: "I swear..."



Il Funzionario/ The Officer

Il Funzionario Giudiziario

dott. Pietro Rossi



Dichiarazione ai fini dell'esenzione fiscale: Si dichiara che il presente atto in base al D.P.R. 26/10/1972 n. 642 e successive modificazioni è esente da bollo e diritti

**TRADUZIONI GIURATE TRADUCEM**  
**OFFICIAL TRANSLATORS & INTERPRETERS**

Certified and sworn translators accredited by the Court of Salerno (Italy)

**Mr. Marius Enciu**

P. IVA: 04992200651

[info@traducentraduzioni.it](mailto:info@traducentraduzioni.it) - [www.traducentraduzioni.it](http://www.traducentraduzioni.it)

Whatsapp & Cell.: (+39) 371 17 49 592 Cell.: (+39) 331 79 38 134

Operational headquarters: **ON THE ITALIAN TERRITORY**

Registered office: **SALERNO - Via Dei Principati, 77 - 84122 (SA)**

Registration into the List of Experts, and Experienced Interpreters and Translators of the Chamber of Commerce of Salerno, registration no. 1132

Registration into the Association of Technical Experts Interpreters, and Translators of the Criminal and Civil Court of Salerno, registration no. 107



## APOSTILLE

(convention de La Haja du 5 octobre 1961)

1. Stato: ITALIA

Il presente atto pubblico

2. è stato firmato da PIETRO ROSSI

3. in qualità di: CANCELLIERE

4. è munito del sigillo/bollo Tribunale di Salerno

Attestato

5. in SALERNO

6. Il 17.05.2021

7. da PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE DI  
SALERNO

8. col numero 984/2021

9. sigillo/fimbro dell'ufficio legalizzazioni

10. Firma.



Il Procuratore della Repubblica Aggiunto  
**Rocco Alfano**





Cédula de Identidad N° 16.018.147-8  
N° Registro 2920/2010  
N° Folio 162574



0162574

# Universidad de Chile

Certifico que el 18 de Mayo de 2010 el Rector de la Universidad de Chile otorgó a doña **PATRICIA PAULINA PALACIOS PALACIOS**, el grado de **LICENCIADA EN FILOSOFÍA** y fue aprobada con distinción máxima 6,2.



Santiago, 08 de Junio de 2010

*M. Co. Andrade*  
Jefe de la Oficina de Titulos y Grados

## Escala de Notas:

aprobado 4 - 4.9 aprobado con distinción 5 - 5.9 aprobado con distinción máxima 6 - 7

(D.U. 7586 de 1993)



La Prorectora de la Universidad de Chile  
certifica que la firma de Don(ña)  
M<sup>ra</sup> Eugenia Arauco

Jefe de la Oficina de Títulos y Grados  
es auténtica.

SANTIAGO, 26 de Dic. de 2012



*Rosa Deves*

ROSA DEVES  
PRORECTORA  
UNIVERSIDAD DE CHILE



39043

El Ministerio de Educación de la República de Chile, a través de la Oficina de Atención al Estudiante, legaliza la firma de:

*Rosa Deves a.*

28 DIC 2012  
*[Signature]*

Primero Ministro de Legalizaciones

Importante: Esta legalización corresponde solo a la firma y no al contenido del documento.

Legalizada en el Ministerio de Relaciones Exteriores de Chile Firma del Señor

*[Signature]*

28 DIC 2012



VICTOR GOMEZ ZAPATA  
Oficial de Legalizaciones

MINISTERIO DE RELACIONES EXTERIORES - CHILE

Traducción Certificada: ☒ Auténtica: ☐

Ejemplares ..... Idioma *Español*

2 DIC 12

Plazo Normal ☒ Urgente ☐ Extra ☐

12/14.034



Carta d'Identità N° 16.018.147-8  
N° Registro 2920/2010  
N° Folio 162574

0162574



## UNIVERSITÀ DEL CILE

Certifico che il 18 Maggio 2010 il Rettore dell'Università del Cile ha conferito alla Signora **PATRICIA PAULINA PALACIOS PALACIOS**, il grado di **LAUREATA IN FILOSOFIA** ed è stata approvata con pieni voti e lode 6,2.

Santiago, 8 Giugno 2010

Capo dell'Ufficio Titoli e Gradi

### Scala di Valutazione

superato 4 – 4.9 superato con lode 5 – 5.9 superato con pieni voti e lode 6 – 7  
(D.U. 7586 del 1993)



La Prorettrice dell'Università del Cile  
certifica che la firma della Signora

Capo dell'Ufficio Titoli e Gradi  
è autentica.

SANTIAGO, 26 Dic. 2012

ROSA DEVES  
PRORETTRICE  
UNIVERSITÁ DEL CILE

Folio N° 39043  
Il Ministero dell'Educazione della Repubblica  
Del Cile, attraverso l'Ufficio di Consulenza  
Cittadina, legalizza la firma di:

28 Dic. 2012

Firma Ministro di fiducia delle Legalizzazioni

Importante: Tale legalizzazione corrisponde solo  
alla firma e non al contenuto del documento.

Legalizzata presso il Ministero degli Affari  
Esteri del Cile. Firma del Signor.....

28 Dic. 2012

VICTOR GOMEZ ZAPATA  
Ufficiale delle Legalizzazioni

MINISTERO DEGLI AFFARI ESTERI – CILE

Traduzione Certificata X Autentica ☐

Copie.....Lingua.....

Termine Normale X Urgente ☐ Extra ☐

Urgente

12/14. 024

L'anno 2021 il giorno 27 del mese di 05The year 2021 day 27 and month 05Nella Cancelleria del Tribunale di SalernoIn the Court Registry of Salerno

Avanti al sottoscritto Funzionario è comparso il Perito/Consulente Tecnico del Tribunale Penale e Civile di Salerno, il Sig. Enciu Vasile Marius, nato il 18/06/1983 e residente in Salerno, con la carta d'identità CA36746AU rilasciata il 19/02/2018 a Salerno il quale chiede di asseverare con giuramento la traduzione che precede.

Pertanto, invitato il predetto C.T. a giurare sulla seguente formula "Giuro di aver bene e fedelmente adempiuto all'incarico affidatomi al solo scopo di far conoscere la verità.

The undersigned Vasile Marius Enciu born in Constanta, date of birth 18/06/1983, identification card no.: N. CA36746AU, issued on 19/02/2018 in Salerno professional interpreter and translator at the Court of Criminal and Civil Law of Salerno (Italy), to registered in the Civil and Criminal Court of Salerno from 30.11.2011, with the number 1132, certifies:

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The C.T. pronounces the following words: "I swear..."



Il Funzionario/ The Officer

Il Funzionario Giudiziario  
dott. Pietro Rossi



Dichiarazione ai fini dell'esenzione fiscale: Si dichiara che il presente atto in base al D.P.R. 26/10/1972 n. 642 e successive modificazioni è esente da bollo e diritti

**TRADUZIONI GIURATE TRADUCEM  
OFFICIAL TRANSLATORS & INTERPRETERS**

Certified and sworn translators accredited by the Court of Salerno (Italy)

**Mr. Marius Enciu**

P. IVA: 04992200651

[info@traducemtraduzioni.it](mailto:info@traducemtraduzioni.it) - [www.traducemtraduzioni.it](http://www.traducemtraduzioni.it)

Whatsapp & Cell.: (+39) 371 17 49 592 Cell.: (+39) 331 79 38 134

**Operational headquarters: ON THE ITALIAN TERRITORY**

**Registered office: SALERNO - Via Dei Principati, 77 - 84122 (SA)**

Registration into the List of Experts, and Experienced Interpreters and Translators of the Chamber of Commerce of Salerno, registration no. 1132

Registration into the Association of Technical Experts Interpreters, and Translators of the Criminal and Civil Court of Salerno, registration no. 107



## APOSTILLE

(convention de La Haja du 5 octobre 1961)

1. Stato: ITALIA

Il presente atto pubblico

2. è stato firmato da PIETRO ROSSI

3. in qualità di: CANCELLIERE

4. è munito del sigillo/bollo Tribunale di Salerno

Attestato

5. in SALERNO

6. Il 17.05.2021

7. da PROCURA DELLA REPUBBLICA C/O IL TRIBUNALE DI  
SALERNO

8. col numero 972/2021

9. sigillo/ timbro/dell'ufficio legalizzazioni

10. Firma.

Procuratore della Repubblica Aggiunto

**Rocco Alfano**

