

Curriculum vitæ

Dr. Gabriele Pulcini

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Current position: Assistant Professor (RTD B) in Logic and Philosophy of Science

url: https://www.researchgate.net/profile/Gabriele_Pulcini

Education

- **Ph.D. (2002 - 2006)**

Joint doctoral thesis:

- **Italian side:** Department of Philosophy – University of Rome III

Ph.D. in "Philosophy and theory of human sciences" (supervisor: V. M. Abrusci)

- **French side:** University of Aix-Marseille II – Mathematical Institute of Luminy

Ph.D. in "Discrete mathematics and foundations of computer science" (supervisor: J. M. Andreoli)

Thesis (in English): *Permutative logic: a geometrical study of linear logic proofs*. Downloadable from: <http://iml.univ-mrs.fr/theses/files/pulcini-tesi.pdf>

Previous positions

- **(Dec. 2019 - Oct. 2020)** Institute for Logic, Language and Computation – University of Amsterdam.

Subject: *A Sentence Uttered Makes a World Appear—Natural Language Interpretation as Abductive Model Generation*

Supervisor: R. Muskens

- **(Sep. 2016 - Nov. 2019)** Department of Mathematics, New University of Lisbon.

Subject: *Hilbert's 24th Problem*

Supervisor: R. Kahle

Research

- **AOS**: *Proof theory*: substructurality, refutation calculi, non-monotonic reasoning, para-consistency, supraclassical and intuitionistic logics, abductive reasoning, cut-elimination theorem — *Philosophy of mathematics*: Gödel incompleteness theorems, Hilbert’s 24th problem, purity of methods.
- **AOC**: General philosophy of science, analytic philosophy, history of logic, set theory, model theory, computability.

• Publications

– Journal papers

1. *A note on cut-elimination for classical propositional logic*. Archive for Mathematical Logic, Vol. 61, p. 555-565 (2022).
2. With M. Piazza and M. Tesi. *Fractional-valued modal logic*. Review of Symbolic Logic, published online (2021) doi:10.1017/S1755020321000411
3. With G. Boniolo, M. D’Agostino, and M. Piazza. *Molecular biology meets logic. Context sensitiveness in focus*. Foundations of Science, Springer (2021). doi:10.1007/s10699-021-09789-y
4. With M. Piazza. *Fractional semantics for classical logic*. Review of Symbolic Logic, Volume 13, Issue 4, pp. 810-828 (2020).
5. With A. Varzi. *Paraconsistency in classical logic*. Synthese, 195(12): 5485-5496 (2018).
6. With W. Carnielli. *Cut-elimination and deductive polarization in complementary classical logic*. Logic Journal of the IGPL 25(3): 273-282 (2017)
7. With M. Piazza. *Unifying logics via context-sensitiveness*. Journal of Logic and Computation. 27(1), 2017.
8. With M. Piazza. *Uniqueness of axiomatic extensions of cut-free classical propositional logic*. Logic Journal of the IGPL. 24(5): 708-718, 2016.
9. With M. D’Agostino and M. Piazza. *How to go non-monotonic through context-sensitiveness*. Logic & Philosophy of Science. Vol. XIII, No. 1, 2015.
10. With G. Boniolo, M. D’Agostino and M. Piazza. *Adding Logic to the Toolbox of Molecular Biology*. European Journal for Philosophy of Science, Vol. 5, Issue 3, pp 399-417 (2015). Springer.
11. With M. D’Agostino and M. Piazza. *A Logic of Controlled Monotonicity*. Journal of Applied Logic 12(4): 558-569 (2014). Elsevier.
12. With G. Boniolo, M. D’Agostino and M. Piazza. *A logic of non-monotonic interactions*. Journal of Applied Logic, 11(1):52-62, 2013. Elsevier.
13. *Rewriting Systems for the Surface Classification Theorem*. Mathematical Structures in Computer Science, Vol. 20: 577-588, 2010. Cambridge Journals.
14. *Computing Surfaces via pq-Permutations*. International Journal of Imaging Systems and Technology. Vol. 19-2: 132-139, 2009. Wiley Periodicals, Inc.
15. *A Geometrical Procedure for Computing Relaxation*. Annals of Pure and Applied Logic. Vol. 158: 80-89, 2009. Elsevier.

– **Book chapters**

1. *The arithmetical nature of the Hydra-Game*, in L. Bellotti and G. Turbanti (eds.), Fourth Pisa Colloquium in Logic, Language and Epistemology. Essays in honor of Enrico Moriconi. ETS Pisa, 2021.
2. With A. Varzi. *Classical Logic through Refutation and Rejection*, in M. Fitting (ed.), Selected Topics from Contemporary Logics Vol. 2, College Publications, 2021.
3. With V. Goranko and T. Skura. *Refutation systems: an overview and some applications to philosophical logics*. In Fenrong Liu, Hiroakira Ono, Junhua Yu, eds, *Knowledge, Proof and Dynamics, The Fourth Asian Workshop on Philosophical Logic*, Springer, Logic in Asia: Studia Logica Library, 2020.
4. With T. Skura. What is refutation? In Mariusz Urbański, Tomasz Skura, and Paweł Łupkowski, eds, *Reasoning: Games, Cognition, Logic*, College Publications (2020).
5. With R. Kahle. *Towards an operational view of purity*. The Logica Yearbook 2017, College Publications 2018.
6. With M. Piazza. *What’s so special about the Gödel Sentence \mathcal{G}* . In F. Boccuni and A. Sereni (eds.), *Philosophy of Mathematics: Objectivity, Cognition and Proof*. Boston Studies in the Philosophy and History of Science, Springer, 2017.
7. With M. Piazza. *A Deflationary Account of the Truth of the Gödel Sentence \mathcal{G}* . In G. Lolli et al. (eds.), *From Logic to Practice*. Boston Studies in the Philosophy and History of Science, Springer, 2015, pp. 71-90.
8. With M. Piazza. *Strange Case of Dr. Soundness and Mr. Consistency*. In V. Punčochář, M. Daňák (eds.), *The Logica Yearbook 2013*, College Publications, London, 2014, pp. 161-172.
9. *The “Extraction” of the Principles of Construction in Number Theory. Mathematical induction vs indefinite descent*. Volume *Open Problems in the Philosophy of Science*, College Publications, 2013.

– **Conference papers**

1. With M. Piazza. *On the Maximality of Classical Logic*. General Proof Theory. Celebrating 50 Years of Dag Prawitz’s “Natural Deduction”. Proceedings of the Conference held in Tübingen, 27-29 November 2015. <http://hdl.handle.net/10900/68977>
2. *Computing Surfaces via pq-Permutations*. Proceedings of the conference International Workshop on Combinatorial Image Analysis 2008 (Special Track on Applications), published in the volume *Image Analysis – From Theory to Applications*: 157-166, 2008. Research Publishing Services.
3. *Permutative Additives and Exponentials*. Proceedings of the conference Logic for Programming, Artificial Intelligence and Reasoning 2007. LNAI 4790: 469-483, 2007. Springer-Verlag.

– **Other publications**

1. With P. Bussotti, *Dimostrazioni diverse di uno stesso teorema: loro importanza didattica*. Nuova Secondaria, Edizioni Studium, 2022.

– **Edited volumes**

1. With M. Piazza. *Truth, Existence, and Explanation*. Boston Studies in the History and Philosophy of Science. Springer, 2018.

- **Selected research presentations**

- **Invited talks**

- * Workshop *Logic and Philosophy of Mathematics*. Scuola Normale Superiore di Pisa (invited by Mario Piazza and Giorgio Venturi). Title: *The problem of abduction between logic and philosophy of science*. Pisa, September, 16-17, 2022.
- * Workshop in honor of Enrico Moriconi (invited by Luca Bellotti). Title: *The arithmetical nature of the Hydra-Game*. Pisa. June 6, 2022.
- * Institute for Logic, Language and Computation, Algebra|Coalgebra Seminar (invited by B. Afshari). Title: *Structural proof theory for rejections in classical logic*. Amsterdam, March 4, 2020.
- * Munich Center for the Mathematical Philosophy, First Pisa-Munich meeting. Title: *How many unprovable sequents are there?* Munich, May 27, 2019.
- * Department of Philosophy, Columbia University NY (invited by A. Varzi). Title: *From complementarity to proof-theoretic semantics*. New York, March 8, 2019.
- * Workshop on *Refutation Calculi*. Keynote speaker (invited by T. Skura). Title: *Advances in the proof theory for classical complementary logic*. Poznań, September 14-15, 2018.
- * Department of Computer Science, University of Tübingen (invited by M. Arndt). Title: *From complementarity to proof-theoretic semantics*.
- * *Pisa Winter Workshop on Proof Theory*. University of Pisa (invited by E. Moriconi). Title: *From complementarity to proof-theoretic semantics*.
- * Department of Computer Science, PUC Rio de Janeiro (invited by L. C. Pereira). Title: *From complementarity to proof-theoretic semantics*. Rio de Janeiro, May 16, 2017.
- * IV Conference of the Brazilian Society for Analytic Philosophy. Round table on non-classical logics. Title: *How to go complementary*. Campinas, July 5-8, 2016.
- * Department of Philosophy, University of Pisa (invited by E. Moriconi). Title: *Proof theory for supraclassical logics*. Pisa, October 29, 2015.
- * Workshop *Proof-Theory: from Semantics to Complexity* (invited by Jean-Baptiste Joinet). Title: *A Logic of Controlled Monotonicity*. Lyon, May 16-17, 2013.
- * Seminar of the IHPST (invited by Marco Panza). Title: *Deflationism about Incompleteness and ω -rule*. Paris, April 22, 2013.
- * Seminar of the group REHSEIS (invited by Jean-Baptiste Joinet). Title: *Une caractérisation algorithmique du théorème de classification*. Paris, April 30, 2009.

- **Contributed speaker in refereed international conferences**

- * The wisdom and madness of crowds: argumentation, information exchange, and social interaction. Title: *Optimal abduction via analytic proofs*. Amsterdam (online), March 31-April 1, 2020.

- * Workshop on Substructural Logics. Title: *Paraconsistency and substructurality in classical logic*. Lisbon, September 26-27, 2019
- * Proof-Theoretic Semantics 2019. Title: *A New Approach to Proof-Theoretic Semantics for Classical Logic*. Tübingen. March 27-29, 2019.
- * Filmat Conference 2018. Title: *Operational Purity in Number Theory*. Mussomeli (Sicily). May 25-27, 2018.
- * Days in Logic 2018. Title: *From Complementary Logic to Proof-Theoretic Semantics*. Aveiro, January 25-27, 2018.
- * Logica 2017. Title: *Purity, Impurity, and Hilbert's 24th Problem*. Hejnice Monastery, June 19-23, 2017.
- * EBL (Brazilian Logic Conference) 2017. Title: *Second incompleteness theorem and the intensional problem*. Pirenópolis, BR, May 9-13, 2017.
- * Trends in Logic 2016. Title: *Cuts and cut elimination in complementary classical logic*. Campinas, September 12-18, 2016.
- * General Proof Theory. Title: *On the maximality of classical logic*. Tübingen, November 27-29, 2015.
- * FILOMENA - Workshop on Philosophy, Logic and Analytical Metaphysics. Title: *Is complementary classical logic really a logic?* Natal, September 1-4, 2015.
- * MBR 2015 - Model-based reasoning in science and technology. Title: *Abduction in context*. Sestri Levante, June 25-27, 2015.
- * 5th World Congress on Paraconsistency. Title: *Towards a unified setting for non-monotonicity and paraconsistency*. Kolkata, India, February 13-17, 2014.
- * Conference *Logica 2013*. Title: *Strange Case of Dr. Soundness and Mr. Consistency*. Hejnice Monastery, June 17-21, 2013.
- * Conference *New Issues in the Philosophy of Mathematics*. Title: *Deflationism about Incompleteness and ω -rule*. Pisa (Italy), September 25-27, 2012.
- * Conference *Logic for Programming, Artificial Intelligence and Reasoning 2007*. Title: *Permutative Additives and Exponentials*. Yerevan, Armenia, October 15-19, 2007.
- * Conference *Computer Science and Logic 2005*. Title: *Permutative logic*. Oxford, UK, August 22-25, 2005.

Professional service

- (2020-23) Council member of the SILFS, Italian Society for Logic and the Philosophy of Science. <https://www.silfs.it/en/home/>
- (2022-25) Council member of the *Consulta Nazionale di Filosofia*. <https://www.consultanazionalefilosofia.it>
- Scientific committee *5th SILFS Postgraduate Conference on Logic and Philosophy of Science*. University of Milano Bicocca, June 13-17, 2022.
- Scientific committee, Workshop on *Refutation Calculi*. Poznań, September 14-15, 2018.
- Local organizing committee, Workshop on “Axiomatic thinking”, 2017

- Local organizing committee, International Conference of the Filmat Network, 2016.
- Local organizing committee, Trends in Logic annual conference, 2016.
- Referee for the *European Journal for the Philosophy of Science*, the *Logic Journal of the IGPL*, the *Journal of Logic and Computation*, the *European Journal for Philosophy of Science*, *Axioms*, *Philosophical Transactions of the Royal Society*, *Advances in Modal Logic*, *Analysis*, *Review of Symbolic Logic*, and *Logica Universalis*.

Teaching

- **A.Y. 2022-23 at the University of “Tor Vergata”:**
 - Course in *Logic* (fall, 30 hours, in Italian), master’s degree in Philosophy.
 - Undergraduate course in *Logic and Philosophy of Science* (fall, 42 hours, in English), bachelor degree in Global Governance (Faculty of Economics).
 - Undergraduate course in *Philosophy of Science* (spring, 60 hours, in Italian), bachelor degree in Philosophy.
- **A.Y. 2021-22 at the University of “Tor Vergata”:**
 - Course in *Logic* (fall, 30 hours, in Italian), master’s degree in Philosophy.
 - Undergraduate course in *Logic and Philosophy of Science* (fall, 42 hours, in English), bachelor degree in Global Governance (Faculty of Economics).
 - Undergraduate course in *Philosophy of Science* (spring, 60 hours, in Italian), bachelor degree in Philosophy.
- **A.Y. 2020-21 at the University of “Tor Vergata”:**
 - Undergraduate course in *Philosophy of Science* (spring, 60 hours, in Italian), bachelor degree in Philosophy,
 - Undergraduate course in *Logic and Philosophy of Science* (spring, 42 hours, in English), bachelor degree in Global Governance (Faculty of Economics).
- **(2020-21)** Graduate course in *Proof Theory* (fall, 28 hours online, in English), Master of Logic, ILLC, University of Amsterdam.
- **(2018-19)** University of Chieti-Pescara, Department of Philosophy, Education and Economics, 36h in Italian, undergraduate course in Logic.
- **(2017-18)** University of Chieti-Pescara, Department of Philosophy, Education and Economics. Lecturer in Logic:
 - 48h in Italian, undergraduate course in Logic;
 - 72h in Italian, master course in Logic.

- **(2015-16)** Graduate course in *Set Theory* (spring, 60 hours, in English), first year of the master course in logic, CLE – University of Campinas.
- **(2014-15)** Graduate course in *Set Theory* (spring, 60 hours, in English), first year of the master course in logic, CLE – University of Campinas.
- **(2013-14)** Graduate course in *Proof Theory* (spring, 12 hours, in French), first year of the master LoPhiSc (Logic and Philosophy of Science), University of Paris 1-Sorbonne.
- **(2013-14)** PhD course in *Proof Theory* (fall, 10 hours, in Italian), PhD program in Computer Science, University of Cagliari, Department of Mathematics and Computing, University of Cagliari.
- **(2012-13)** Graduate course in *Proof Theory* (spring, 12 hours, in French), first year of the master LoPhiSc (Logic and Philosophy of Science), University of Paris 1-Sorbonne.
- **(2011-12)** PhD course *Some logical notes for (bio)informaticians* (12 hours, in English), IFOM-IEO European School for Molecular Medicine of Milan.
- **(2010-11)** Graduate course in *Proof Theory* (fall, 24 hours, in French), first year of the master LoPhiSc (Logic and Philosophy of Science), University of Paris 1-Sorbonne.

Rome, 07/01/2023