

Juan Luis Gastaldi

Professional Address: ETH Zurich, RZ J 8, Clausiusstrasse 59, 8092 - Zurich, ZH, Switzerland.
Professional Telephone: +41 44 632 87 26
E-mail: juan.luis.gastaldi@gess.ethz.ch
Professional Webpage: www.jlgastaldi.com

Education

- 2014** **PhD in Philosophy, University of Bordeaux Montaigne.**
Dissertation title: “Une archéologie de la logique du sens. Arithmétique et contenu dans le processus de mathématisation de la logique au XIXe siècle”. *Summa cum laude.*
- 2006-2007** **Master [MA] in Philosophy, University of Paris 1 Panthéon-Sorbonne.**
- 2005-2008** **École Normale Supérieure (ENS) Paris (SI 2004).**
Major: Philosophy; Minor: Mathematics.
- 2007-2011** **Licence [BSc] in Mathematics (L1-L2), University of Paris 6 Pierre et Marie Curie.**
First 2 of a total of 3 years.
- 2004** **Licenciatura [BA+MA] in Political Sciences, Rosario National Univ. (UNR, Argentina).**

Professional Appointments

- Oct 2019-Present** **Chair of History and Philosophy of Mathematical Sciences, D-GESS, ETH Zurich.**
Marie Skłodowska-Curie Fellow (H2020). PI of the project “SemioMaths”.
- Oct 2019-Dec 2022** **Turing Centre, ETH Zurich.** Managing Director.
- Oct 2012-Present** **MO.CO.ESBA.** Professor of Philosophy and History of Ideas.
Tenured, on leave since Oct 2019.
- Jan 2018-Sept 2019** **SPHERE, UMR 7219, CNRS-Paris Diderot University.** Associate Researcher.
- Oct 2017-Dec 2017** **Institute of Philosophy, Czech Academy of Science.** Postdoctoral researcher.
- Nov 2016-Sept 2017** **Chair of History and Philosophy of Mathematical Sciences, D-GESS, ETH Zurich.**
Postdoctoral researcher.
- Mar 2016-Oct 2016** **SPHERE, UMR 7219, CNRS-Paris Diderot University.** Associate Researcher.
- Oct 2007-Sept 2014** **SPH, EA 4574, Bordeaux Montaigne University.** Doctoral Student.

Research Activities

Approved Research Projects

- 2019-2022** **SemioMaths: Towards a theory of mathematical signs based on the automatic treatment of mathematical corpora.** (191.1K€)
HPM Chair (ETH Zurich), Turing Centre (ETH Zurich), SPHERE Laboratory (Université Paris Cité). Principal Investigator: Juan Luis Gastaldi. Project funded by Marie Skłodowska-Curie Actions (Individual Fellowship) in the framework of the EU programme Horizon 2020. Call H2020-MSCA-IF-2018. Grant Agreement No 839730.
- 2019-2020** **SemioLog: Segmentation and Typing by orthogonality for the automatic treatment of mathematical language.** (1.2K€)
SPHERE (Université Paris Cité), IRIF (Université Paris Cité). Principal Investigators: Juan Luis Gastaldi and Luc Pellissier. Seed funding by the Institut Humanités, Sciences, Sociétés of the Université Paris Cité.
- 2015-2019** **COSA: CONnexion Science & Art.**
MO.CO.ESBA, Institute of Electronics and Systems (University of Montpellier – CNRS), Institute Charles Gerhardt of Montpellier (University of Montpellier – CNRS), ENSAM (National School of Architecture of Montpellier). Research managers: Juan Luis Gastaldi and Bruno Alonso.
- 2013-2017** **Choses de prix: Métaphysique comparée de l’objet d’art et de la marchandise.** (50K€)
University of Paris Ouest Nanterre, University of Paris 8, PSE, MediaLab Science Po, Quai Branly Museum and ESBA-MoCo. Research managers: P. Maniglier, C. Perret, P.-Y. Geoffard, B. Latour, F. Keck and J. L. Gastaldi. Research program funded by the University Paris Lumières and the Carasso Foundation.
- 2012-2013** **Formal Mediums: Arts&Mathematics Platform.** (4K€)
Research Platform in art and mathematics, associating artists and theoreticians of the Akademie Schloss Solitude. Project Coordinators: Juan Luis Gastaldi and Mladen Alexiev. Project funded by the Akademie Schloss Solitude.

Research Visits

- 2023** **Cohn Institute for the History and Philosophy of Science** (Tel Aviv, Israel)
Fellow of the Exchange Program “Knowledge in Society”. April.
- 2022-2023** **Hoskinson Center for Formal Mathematics, Carnegie Mellon University** (Pittsburgh, USA)
Host: Prof. Jeremy Avigad. Nov 22-Feb 23.
- 2022-2023** **The Graduate Center, City University of New York** (New York, USA)
Host: Prof. John Terilla. Aug 22-Feb 23.

Organisation of Scientific Events

International Conferences

- 2021** **HaPoC-6 (History and Philosophy of Computing)**. ETH Zurich, Turing Centre Zurich.
Chairs: Juan Luis Gastaldi and Luc Pellissier (on behalf of the HaPoC Council).

Seminars

- 2019-Present** **Seminar “Images”**. Turing Centre Zurich (ETH Zurich).
2019-2021 **Seminar and Workgroup “SemioLog”**. SPHERE (Université Paris Cité) and LACL (Paris Créteil). Coordinators: Juan Luis Gastaldi and Luc Pellissier.
2016-2019 **Seminar “Semiomaths”**. SPHERE (CNRS, Université Paris Cité). Organizers: J. L. Gastaldi, P. Maniglier and D. Rabouin. Person in charge: J. L. Gastaldi.
2015-2016 **Seminar “Mathématiques 19e-20e, histoire et philosophie”**. SPHERE (Université Paris Cité). Organizers: S. Decaens, D. Waszek, P. Bertin and J. L. Gastaldi.
2011-2013 **Seminar “Formalisme(s): la philosophie française et les sciences formelles”**. CIEPFC (ENS Paris). Organizers: J. L. Gastaldi and T. Tho.
2012 **“Formal Seminar”**. Research seminar about formalism in art, philosophy and sciences. Akademie Schloss Solitude, Stuttgart, Germany.

Lectures and Workshops

- 2022** **TDPHiMath3: Philosophical and Linguistic Approaches to Computational Mathematics**
ETH Zurich, University of Duisburg-Essen. Organizers: Bernhard Fisseni, Juan Luis Gastaldi, Deborah Kant, Deniz Sarikaya and Bernhard Schröder.
2021 **IC2S2 Satellite Event: Artificial Emotional Intelligence: Can and Should Emotions Be Computed?** ETH Zurich, Turing Centre. Organizers: Juan Luis Gastaldi, Samuel Hunziker, Edith Schmid and Jennifer Scurrall.
2021 **The Development of 19th Century Geometrical Knowledge: Projective Geometry, Duality, Reflection and Inversion** ETH Zurich, Turing Centre & Zentrum Geschichte des Wissens. Organizers: Juan Luis Gastaldi et Idit Chikurel
2019 **Lecture series “Around digital humanities and their uses in the history and philosophy of science”**. SPHERE (Université Paris Cité). Organizers: Juan Luis Gastaldi, Emmylou Haffner et Edgar Lejeune.
2018 **“Semiomaths” First International Workshop**. ETH Zurich. Person in charge: J. L. Gastaldi. Organizers: Chair HPM (D-GESS ETHZ), Turing Centre Zurich, SPHERE (Université Paris Cité).
2016 **Workshop “Poetry and Computing”**. MO.CO.ESBA - hTh, Montpellier, France.
2010 **Workshop “Theory of Expression and Aesthetics”**. LNS Laboratory (EA 4201), Bordeaux Montaigne University. Organizers: J. L. Gastaldi and Julia Peker.
2009 **Workshop “Deleuze and Philosophy”**. UNR, Rosario, Argentina. Organizers: J. L. Gastaldi and M. Navarro.

Teaching experience

(U: Undergraduate; G: Graduate; P: Postgraduate)

2019-Present ETH Zurich (Department of Humanities, Social and Political Sciences): Lecturer.

Courses delivered (U, G, P): “Philosophy of Language and Computation II” (SS2023) (with Ryan Cotterell); “Philosophy of Language and Computation” (AS2022) (with Ryan Cotterell); “Images of Computing” (AS2021); “Around 1936: The New Language of Science” (SS2022); “Images of the Human” (AS2021); “History of Formal Logic: The Emergence of Boolean Logic” (SS2021); “Rebooting AI: Human and social aspects of Artificial Intelligence”(SS2021) (with Olivier Del Fabbro, Aline Nardo, Vanessa Rampton and Dragan Trninic); “Images of Language” (AS2020); “The Birth of Formal Sciences: History and Philosophy of the Relation Between Logic and Mathematics” (SS2020).

2018-2020 CentraleSupélec Engineering School: Short-term Lecturer.

Courses delivered (U): “Computing Culture: Social Sciences in the Face of AI” (AS2020); “Historical, Philosophical and Ethical Perspectives on AI and Data Sciences” (AS2018) (in collaboration with Benoît Duchemann and Nicolas Brault).

2012-2019 MO.CO.ESBA: Professor of Philosophy and History of Ideas.

Courses delivered (G, U): “Form(s) and formalism(s)” (2018); “Philosophy of the digital” (2012, 2015); “Contemporary philosophy and aesthetics” (2012, 2013); “Problems in modern and contemporary aesthetics” (2013, 2014); “The language” (2014); “The space” (2014); “Philosophies of the image” (2015, 2016); “Reflections on the end of postmodernity” (2016, 2017).

2017 Czech Academy of Science (Institute of Philosophy): Visiting Professor.

Courses delivered (G, P): “Sociology of Science and Scientific Knowledge” (AS2017) (in collaboration with Jan Marsalek).

2010-2011 National University of Rosario (UNR), Argentina (Department of Philosophy): Invited Lecturer.

Course delivered (G, P): “The sense of a logic of sense” (AS2011), “Gilles Deleuze: Philosophy, Logic and Mathematics” (AS2010).

2004-2005 UNR, Argentina (Department of Political Sciences): Teaching Assistant.

Courses delivered (U): “Epistemology of Social Sciences”, “Political Theory II”.

1999-2004 UNR, Argentina (Department of Political Sciences, Department of Economics): Teaching Assistant.

Courses delivered (U): “Political Theory II”, “Sociology”, “Introduction to Social Sciences”.

Institutional Responsibilities and Supervising Activities

2021-Present HaPoC Council. President.

2019-Present D-GESS, ETH Zurich. Supervision of graduate students.

2019-2022 Turing Centre Zurich, ETH Zurich. Managing Director.

2012-2016 MO.CO.ESBA. Head of the Research Department.

2012-2019 **MO.CO.ESBA.** Supervision of MA Thesis of graduate students.

Others

External reviewer for several scientific journals (Nature Scientific Reviews, Philosophy & Technology, Humanities and Social Sciences Communications, etc.)

PC Member for different scientific conferences (HaPoC, CiE, PhilML, CLMPST)

Prizes, Awards, Fellowships

- 2022** Fellow of the Academic Exchange Program “Knowledge in Society” (ETH Zurich/Cohn Institute for the Hist. and Phil. of Sc. and Ideas, Tel Aviv University).
- 2021** SNF Scientific Exchanges.
- 2019-2021** Marie Skłodowska-Curie Individual Fellowship, H2020-MSCA-IF-2018.
- 2011-2012** Research Fellow at the Akademie Schloss Solitude, Stuttgart, Germany.
- 2007-2011** Doctoral Fellowship “LNS”, Bordeaux Montaigne University, France.
- 2005-2007** Masters Fellowship “Saint-Exupéry”, French Government and Argentinian Government.
- 2005** “Leaders” Scholarships (for students with the top academic records in Latin America). Carolina Foundation, Spain.
- 2004** “Best Average Grade” distinction. National University of Rosario, Argentina.
- 2003** Scholarship “Outstanding Student”. Acindar Foundation, Argentina.

Professional Memberships

2020-Present **Association for the Philosophy of Mathematical Practice (APMP).** Member.

2017-Present **Commission for the History and Philosophy of Computing (HaPoC).** Member.

2016-Present **Research Network on the History and the Methods of Historical Epistemology.** Member.

Languages

- Spanish** Native
- French** Near native (speaking, reading, writing)
- English** Near native (speaking, reading, writing)
- German** Good working knowledge (reading)
- Italian** Good working knowledge (reading)
- Portuguese** Good working knowledge (reading)

Publications List

Doctoral Dissertation

- [16] J. L. Gastaldi. “**Une archéologie de la logique du sens : arithmétique et contenu dans le processus de mathématisation de la logique au XIXe siècle**”. Theses. Université Michel de Montaigne - Bordeaux III, Sept. 2014. URL: <https://tel.archives-ouvertes.fr/tel-01174485>.

Publications in Peer-reviewed Scientific Journals

- [3] J. L. Gastaldi. “**Why Can Computers Understand Natural Language?**” In: *Philosophy & Technology* 34.1 (2021), pp. 149–214. ISSN: 2210-5441. DOI: 10.1007/s13347-020-00393-9. URL: <https://doi.org/10.1007/s13347-020-00393-9>.
- [4] J. L. Gastaldi and L. Pellissier. “**The calculus of language: explicit representation of emergent linguistic structure through type-theoretical paradigms**”. In: *Interdisciplinary Science Reviews* 46.4 (2021), pp. 569–590. DOI: 10.1080/03080188.2021.1890484.
- [10] J. L. Gastaldi. “**Frege’s Habilitationsschrift: Magnitude, Number and the Problems of Computability**”. In: *History and Philosophy of Computing*. 2016, pp. 168–185. DOI: 10.1007/978-3-319-47286-7_12.
- [11] J. L. Gastaldi. “**Par-delà métaphore et littéralité. Le statut des mathématiques dans l’œuvre de Deleuze**”. In: *Implications Philosophiques* (2016). URL: <http://www.implications-philosophiques.org/actualite/une/par-dela-metaphore-et-litteralite/>.
- [12] J. L. Gastaldi. “**Frege’s Habilitationsschrift and the Functional Approach to Magnitudes**”. In: *Preliminary proceedings of the Third international conference on the history and philosophy of computing (HaPoC 2015) : 8-11 Oct. 2015, Pisa (Italy)*. Ed. by F. Gadducci. Pisa: Pisa University Press, 2015. ISBN: 9788867415762.
- [21] J. L. Gastaldi. “**La politique avant l’être. Deleuze, ontologie et politique**”. In: *Cités* 40 (2009), pp. 59–73. ISSN: 12995495, 19696876. URL: <http://www.jstor.org/stable/40599521>.

Contributions to Books

- [1] J. L. Gastaldi. “**De Morgan’s De Morgan’s Laws: Duality in the Emergence of Formal Logic**”. In: *Duality in 19th and 20th century mathematical thinking*. Ed. by R. Krömer, E. Haffner, and K. Volkert. Birkhäuser, forthcoming (estimated date: 2023 Q1).
- [2] J. L. Gastaldi. “**Boole’s Untruth Tables: The Formal Conditions of Meaning Before the Emergence of Propositional Logic**”. In: *Logic in Question: Talks from the Annual Sorbonne Logic Workshop (2011- 2019)*. Ed. by J.-Y. Béziau et al. Cham: Springer International Publishing, 2022, pp. 119–149. ISBN: 978-3-030-94452-0. DOI: 10.1007/978-3-030-94452-0_7. URL: https://doi.org/10.1007/978-3-030-94452-0_7.
- [8] J. L. Gastaldi. “**L’archéologie à l’épreuve des savoirs formels. Mathématiques et formalisation dans le projet d’une archéologie des savoirs**”. In: *L’épistémologie historique. Histoire et méthodes*. Ed. by J.-F. Braunstein, I. M. Diez, and M. Vagelli. Éditions de la Sorbonne, 2019.
- [14] J. L. Gastaldi. “**Le sens d’une Logique du Sens: Deleuze, Frege et le rendez-vous manqué**”. In: *Gilles Deleuze: Politiques de la Philosophie*. Ed. by A. Jdey. Métis Press, 2015, pp. 205–227.

- [19] J. L. Gastaldi. “**L’esthétique au sein des mots: Discours, figure, ou le renouvellement du projet critique**”. In: *Le Moment philosophique des années 1960 en France*. Ed. by P. Maniglier. Presses Universitaires de France, 2011, pp. 537–556.
- [20] J. L. Gastaldi. “**Qu’est-ce qu’une figure? Lyotard et le problème du fondement d’une théorie de l’expression**”. fr. In: *Lyotard à Nanterre*. Ed. by C. Pagès. Continents philosophiques. Paris: Klincksieck, 2010. ISBN: 978-2-252-03774-4.

Preprints

- [6] J. L. Gastaldi and L. Pellissier. “**The Logic of Language: from the Distributional to the Structuralist Hypothesis through Types and Interaction**”. Working paper or preprint. Dec. 2020. URL: <https://hal.archives-ouvertes.fr/hal-03064480>.

Submitted

- [s1] **Content from Expressions: The Place of Textuality in Deep Learning Approaches to Mathematics**. Submitted to *Synthese* (under review).
- [s2] **Le contexte en traitement automatique des langues**. In collaboration with Christian Retoré and Richard Moot. To appear as a chapter in Godart-Wendling, Béatrice (ed.) *Les concepts fondateurs de la philosophie du langage: Contexte*, volume series, ISTE.
- [s3] **Byte Pair Encoding is Approximately Optimal**. In collaboration with V. Zouhar, C. Meister, M. Sachan, and R. Cotterell. Submitted to *ACL* (under review).
- [s4] **Tokenization and the Noiseless Channel**. In collaboration with V. Zouhar, C. Meister, M. Sachan, and R. Cotterell. Submitted to *ACL* (under review).

In Progress

- [p1] **Handbook of the History and Philosophy of Mathematical Practice**. Editor of the section “Semiology of Mathematical Practice”. Work to be published by Springer; Chief Editor: Bharath Sriraman. Confirmed contributors: Jeremy Avigad, Karine Chemla, Anna Kiel Steensen, Ladislav Kvasz, Reviel Netz, Lucien Vinciguerra, Roy Wagner, David Waszek. <https://meteor.springer.com/historyandphilosophymaths/?id=915&tab=About&mode=ReadPage&entity=6886>.
- [p2] **Computing Cultures: Historical and Philosophical Perspectives**. Guest editor of the SI “Computing Cultures: Historical and Philosophical Perspectives”, *Minds and Machines*. With Luc Pellissier. <https://www.springer.com/journal/11023/updates/18800754>.
- [p3] **Rethinking Language with Category Theory**. In collaboration with Tai-Dane Bradley and John Terilla. Commissioned by *Notices of the AMS*. To be submitted on March 15th.
- [p4] **Removing Spurious Ambiguity in Byte-Pair Encoding**. In collaboration with R. Cotterell and V. Zouhar. To be submitted to *EMNLP*.

[p5] **semiolog**

Gianni-G/semiolog: Alpha version (v0.0.0-alpha). Zenodo. <https://doi.org/10.5281/zenodo.7659083>; <https://pypi.org/project/semiolog/>. Software package for the analysis of mathematical textuality.

Outreach publications

- [7] J. L. Gastaldi and B. Serra. “**Swipe, ou l’écriture tout court.**” In: *Formules* 22 (2020).
- [13] J. L. Gastaldi. “**La Ville Lumière**”. In: *Atlas Solitude*. Ed. by S. Editions. Solitude Editions, 2015. Chap. Akademie Schloss Solitude, pp. 199–203.
- [15] J. L. Gastaldi. *Superpositions*. Texte pour l’exposition de Michaël Sellam: “des choses, de l’espace”, Galerie Vasistas. 2014.
- [17] J. L. Gastaldi. “**Bérénice Serra: AD64**”. In: *Infra* 7 (2013).
- [18] J. L. Gastaldi. “**Ouverture**”. In: *Quinze ans d’art à HEC*. Espace d’art contemporain HEC, 2013, pp. 102–105.
- [22] J. L. Gastaldi and D. Alvaro. “**Spanish translation of: Jean-Luc Nancy, “Les différences parallèles (Deleuze & Derrida)”**”. In: *Por amor a Derrida*. Ed. by M. Cragnolini. La Cebra, 2008, pp. 249–262.
- [23] J. L. Gastaldi. “**De l’ “intéressant” dans l’art**”. In: *L’exposition des idées*. E.N.S./Villa Arson, 2007.
- [24] J. L. Gastaldi and S. Lorenzi. “**Rencontre**”. In: *L’exposition des idées*. E.N.S./Villa Arson, 2007.

Conferences, Lectures and Invited Talks

International Conference Papers (selection)

- 2022 The Language of Mathematics: Epistemological Consequences of the Application of Neural Models to Mathematical Knowledge.** PhilML, Philosophy of Science Meets Machine Learning, Tübingen, Germany. Oct. Paper accepted, presentation cancelled due to research stay abroad.
- 2022 Mathematics as Natural Language: Principles, Consequences and Challenges of the Application of NLP Models to the Treatment of Mathematical Knowledge.** CiE-2022, Computability in Europe 2022, Swansea, UK. July.
- 2020 Mathematical Language Processing: A conceptual and technical framework for the automatic treatment of mathematical texts.** APMP-2020, 5th International Meeting of the Association of Philosophy of Mathematical Practices, Zurich, Switzerland. Feb.
- 2019 An alternative logical approach to machine learning.** HaPoC-2019, 5th International Conference on the History and Philosophy of Computing, Bergamo, Italy. Oct.
- 2019 Identity and indiscernibility in the formal treatment of natural language.** Conference “Leibniz’s Principle of Identity of Indiscernibles and its Repercussion in Physics and Mathematics”, LIA “Identité, Forces, Quanta”, Paris, France. Sept.
- 2019 Archéologie et changement conceptuel dans les mathématiques.** Advanced Franco-Mexican Seminar on History and Philosophy of Sciences, Paris, France. June.
- 2019 De Morgan and Boole: The Dualities of Logic.** Workshop: Duality as an archetype of mathematical thinking, CIRM, Marseille, France. March.
- 2018 The emergence of a mathematical concept of “symbol” in the work of Robert Woodhouse.** 29th Novembertagung Conference, Inst. of Math. of the Univ. of Seville, Seville, Spain. Nov.

- 2018 **Identity and types of units in language: What can we learn from word embeddings?** Conference “Le même et l’autre: identité, orthogonalité, types”, IRPhiL, Lyon 3 University, Lyon, France. Nov.
- 2018 **Diferencia y repetición a la luz de las teorías formales contemporáneas de la significación.** Keynote speaker at the international conference “Deleuze y La Filosofía de la Diferencia”, Universidad Javeriana, Bogotá, Colombia. Sept.
- 2018 **Semiology of mathematics and automatic corpus analysis.** “Semiomaths” First International Workshop, HPM-ETH, Zurich, Switzerland. March.
- 2018 **Signs and Calculation: A structuralist approach to language and computing.** HaPoC-2017, 4th International Conference on the Hist. and Phil. of Computing, Brno, Czech Republic. Oct.
- 2017 **The emergence of English Abstract Algebra. Conditions and limits of symbolism in mathematics.** Invited Speaker at the “Contemporary Mathematics and Philosophy Summer School”, International Centre of Mathematics and Informatics of Toulouse (CIMI), Toulouse, France. June.
- 2016 **Elements of semiology of mathematics.** Workshop III: “Philosophy and Philosophy of mathematics”, Thematic trimester “Current Issues in the Philosophy of Practice of Mathematics & Informatics” of the Int. Centre of Mathematics and Informatics of Toulouse (CIMI), Toulouse, France. June.
- 2016 **Death and resurrection of objects in formal sciences. The laborious obliteration of arithmetic in the emergence of Abstract Algebra, and its effects in the disappearing of Syllogistic Logic.** International conference: “Transformation, degradation, disappearance of scientific objects”, Institute of Philosophy of the Czech Academy of Sciences, Prague, Czech Republic. June.
- 2015 **Boole’s Arithmetic of 0 and 1: The mathematical conditions of logic.** Third International Meeting of the Association for the Philosophy of Mathematical Practice (APMP), Paris, France. Nov.
- 2015 **Frege’s *Habilitationschrift* and the functional approach to magnitude** HaPoC-2015, 3rd International Conference on the History and Philosophy of Computing, Pisa, Italy. Oct.
- 2015 **The content of numerical signs: The problematic meaning of numerical coefficients in Boole’s Algebra of Logic.** George Boole Mathematical Scs. Conference, University College Cork, Ireland. Aug.
- 2015 **De la sémiotique des mathématiques à la logique du sens.** Conference “Deleuze: Machines, Virtuel, et Lignes de Fuites”, Centre Culturel International de Cerisy, University of Paris Ouest Nanterre, Cerisy, France. Aug.
- 2015 **Différence et Répétition dans la logique de George Boole.** Conference “Logic in question”, University of Paris 1 – Panthéon Sorbonne, Paris France. June.
- 2015 **L’archéologie à l’épreuve des savoirs formels.** Conference “Epistémologie Historique”, University of Paris 1 – Panthéon Sorbonne, Paris, France. May.
- 2015 **Signs - From a semiotics of mathematics to a formal approach in art.** Conference “Calculation and Aesthetics, Akademie Schloss Solitude, Stuttgart, Germany. April.
- 2013 **Analyticité et contenu dans le processus de mathématisation de la logique au XIXe siècle** Conference “Analyticité et Complexité”, IRPhil, Lyon 3 University, Lyon, France. Dec.
- 2013 **La répétition après la figure. L’autre forme dans le renouvellement du projet critique.** Conference “Deleuze et Lyotard: deux lignes de fuite pour la philosophie du vingtième siècle”, University of Toulouse Le Mirail, Toulouse, France. July.
- 2010 **Logic and Philosophy in the work of Kant and Hegel: The philosophical conditions for a general logic.** UNILOG-2010, World Congress and School On Universal Logic III, Lisbonne, Portugal. April.
- 2010 **Cavaillès et Lautman: Les formes du concept.** Conference “Cavaillès-Lautman-Canguilhem: Le Concept, L’Être, La Vie”, Réseau européen de recherche sur la Philosophie Française contemporaine, ENS, Paris, France. Jan.

Lectures and Invited Talks (selection)

- 2023 **The Language of Mathematics: Epistemological Consequences of applying AI methods to Mathematics** Research Seminar. Cohn Institute for the History of Science and Ideas, Israel. April.
- 2023 **Peeking into the AI Language Modeling Black Box** Lunch Seminar. Department of Philosophy, Carnegie Mellon University, USA. Feb.
- 2023 **Why Can Computers Understand Natural Language?** Digital Theory Lab Seminar. NYU, USA. Feb.
- 2023 **Neural Approaches to Mathematics** ITS Seminar. ITS, The Graduate Center, CUNY, USA. Jan.
- 2022 **Content from Expressions: from Distributional Properties of Numerals to Arithmetical Content** OCIE Seminar in the History and Philosophy of Mathematics and Logic. Chapman University, USA. Dec.
- 2022 **Some Ideas for a Distributional Approach to Arithmetical Content.** TDPhiMa3: Text Driven Approaches to the Philosophy of Mathematics 3. Universität Duisburg Essen, Germany. Sept.
- 2022 **Darings and Regrets: Crossed Perspectives Between Structuralism and Machine Learning.** Symposium “Facets of structural thinking. Reasons and methods of a rediscovery”. University of Liège, Belgium. April.
- 2022 **Modèles neuronaux et savoir mathématique: l’apprentissage du symbolique.** Workshop ÉPISTÉMOLOGIE (ÉPISTÉMOlogie des OPÉRations de l’Intelligence Artificielle). University of Franche-Comté, France. Feb.
- 2021 **Deep mathematics. The place of textuality in neural approaches to mathematical knowledge.** TDPhiMa2: Text Driven Approaches to the Philosophy of Mathematics 2. Universität Hamburg. Hamburg, Germany. Sept.
- 2021 **What do neural models tell us about the nature of language? Interactions between formal and computational linguistics.** ILFC Seminar, GDR LIFT. Paris, France. June.
- 2020 **The Logic of Language From the Distributional to the Structuralist Hypothesis through Types and Interaction** SemioLog Seminar, Paris, France. Dec.
- 2020 **The Image of Language From the 19th Century to Our Days.** TCZ Interdisciplinary Seminar, Zurich, Switzerland. Sept.
- 2019 **La revanche connexionniste.** PhisIA Research Seminar (Philosophy, History and Sociology of Artificial Intelligence), Paris Diderot University, Paris, France. November.
- 2019 **Traitement automatique de corpus mathématiques: le projet SemioMaths.** Research Seminar of the LIPN Computer Science Lab, Paris Nord University, Paris, France. May.
- 2018 **“Activist” “Viewpoints” Lectures,** Bob & Roberta’s Art Exhibition, MO.CO.PANACÉE Art Centre, Montpellier, France. June.
- 2018 **Response to Andrew Arana’s talk “The disunity of mathematics”,** 4th Conference “Epistémologie Historique”, University of Paris 1 – Panthéon Sorbonne, Paris, France. May.
- 2018 **Sémiologie des mathématiques et analyse automatique de corpus.** Seminar “Logique, Mathématiques, Informatique, Raisonnement”, IRPhiL, Lyon 3 University, Lyon, France. Feb.
- 2018 **“Rage against the machine”: Révolution industrielle, révolution numérique.** Public lecture within the program of “Assemblée Générale. Mai 68”, Centre Pompidou, Paris, France. May.
- 2017 **“Robert Woodhouse: the birth of mathematical symbolism”.** “Philosophy of mathematics in the 19th Century”, Institute of Philosophy, Czech Academy of Science, Prague, Czech Republic. Dec.
- 2017 **Towards a semiology of mathematics.** Research Colloquium ETH-UTZ, Zurich, Switzerland. April.
- 2017 **Les arborescences de la logique** Conference Intuitio II, Esba TALM, Tours, France. Jan.
- 2016 **Epistemology and semiology of mathematical practice.** Invited lecture at the chair of Epistemology of the Faculty of Psychology, UNR, Rosario, Argentina. Aug.

- 2016 **Structuralism and poststructuralism. The continuity under the divergence.** Conference “Lacan and Deleuze in perspective” of the Postgrad. Dept. in Psychoanalysis, UNR, Rosario, Argentina. Aug.
- 2016 **L’autre archéologie du numérique: mathématiques, logique et langage dans le développement de l’informatique.** Research seminar, School of Fine Art and Design of Valence, Valence, France. Feb.
- 2016 **L’archéologie des savoirs formels.** Research seminar on didactics and epistemology of mathematics, Institut Montpellierain Alexander Grothendieck (University of Montpellier), Montpellier, France. Jan.
- 2016 **Vies parallèles des formalismes.** Workshop “Poetry and Computing”, MO.CO.ESBA - hTh, Montpellier, France. Sept.
- 2015 **Les conditions d’une logique du sens. Frege vs. Russell et la double articulation des signes numériques.** Seminar “Philosophie française et philosophie analytique au XXe siècle”, CIEPFC, ENS, Paris, France. April.
- 2015 **The relation between logical content and arithmetic in the semiotic constitution of Boolean logic.** Workshop on Philosophy of Logic, Keio University, Tokyo, Japan. Feb.
- 2014 **Sens et mathématiques: La place des signes dans le processus de mathématisation de la logique de Boole à Frege.** Seminar “Philo/Maths XIX-XX siècles”, SPHERE, Paris, France. Dec.
- 2014 **Roundtable** with Jean-Yves Girard, Patrice Maniglier & David Zerbib, Conference “Intuitio”. ESAAA, Annecy, France. April.
- 2013 **Les formes impures de l’intuition: Figuralité et espace.** Session #1 of the “Laboratoire des Intuitions”. ESAAA, Annecy, France. Nov.
- 2013 **Frege et l’articulation du passage du contenu au sens.** Special session “Kant et Frege, Lectures croisées”, Seminar “Philosophie française et philosophie analytique au XXe siècle”, CIEPFC-ENS, Paris, France. June.
- 2013 **Le projet deleuzien d’une logique du sens, au croisement de la logique frégréenne et du structuralisme.** Workshop “Le structuralisme est un formalisme”, Séminaire “Formalisme(s)”, CIEPFC-ENS, Paris, France. Jan.
- 2012 **Philosophie française, Philosophie analytique et Formalisme.** Roundtable avec Jean-Michel Salanskis, Élie During and Tzuchien Tho, Conférence “Le Contemporain”, CIEPFC-ENS, Paris, France. June.

Outreach Publications and Activities

- 2020 ***Swipe*, ou l’écriture tout court.**
Co-authored with Bérénice Serra. *Formules*, Presses Universitaires du Nouveau Monde and Melodia E. Jones Chair of the State University of New York, n° 22, *Littératures, performances & technologies*.
- 2018 **“Rage against the machine”: Révolution industrielle, révolution numérique.** Public lecture within the program of “Assemblée Générale. Mai 68”, Centre Pompidou, Paris, France. May.
- 2016 **Vies parallèles des formalismes.** Workshop “Poetry and Computing”, MO.CO.ESBA - hTh, Montpellier, France. Sept.
- 2015 **La Ville Lumière.** In *Solitude Atlas* n° 40, Stuttgart, Solitude Editions, 2015, p. 199-203.
- 2014 **Superpositions.** Text for Michaël Sellam’s exhibition “des choses, de l’espace”, Galerie Vasistas, Montpellier, France Oct-Dec.
- 2013 **Bérénice Serra: AD64.** *Infra Magazine*, n° 7, ISSN 2258-2959.
- 2011 **Ouverture.** In *Nexus* (exhibition catalogue), HEC Paris, May 2011. Reprinted in the catalogue *Quinze ans d’art à HEC*, Paris, Espace d’art contemporain HEC, 2013, pp. 102-105.
- 2008 **Spanish translation of: Jean-Luc Nancy, “Les différences parallèles (Deleuze & Derrida)”.** With Daniel Alvaro, in Cragoliní, M. (comp.), *Por amor a Derrida*, Buenos Aires, Ediciones La Cebra, 2008, p. 249-262.

- 2007 **De l' "intéressant" dans l'art.** in *L'exposition des idées*, catalogue, E.N.S./Villa Arson, June 2007.
- 2007 **Rencontre.** With Sandra Lorenzi, in *L'exposition des idées*, catalogue, E.N.S./Villa Arson, June 2007.