

Melisa Vivanco

Assistant Professor
Department of Philosophy
The University of Texas - Rio Grande Valley
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Personal Website

Professional Experience

Instructor, National Autonomous University of Mexico (UNAM), 2010–2017, 2020–2023

College: Faculty of Science

Department: Mathematics

Instructor, University of Miami, Coral Gables, 2017–2022

College: Arts and Sciences

Department: Philosophy

Education

Graduate Program in Philosophy, University of Miami, Ph.D., October 2022

Project: Grounding and Fundamentality: Modeling Quantities and their Bases

Supervisor: Otávio Bueno

Doctoral Program in Philosophy of Mathematics and Logic of Science, UNAM, Ph.D., Fall 2017

Project: Numbers as Properties

Supervisor: Mario Gómez-Torrente

(Honorific Mention in final defense)

Graduate Program in Philosophy of Science, UNAM, M. A., Fall 2012

Project: Knowledge in Sudoku: Formal Epistemology in a Microcosm

Supervisor: Francisco Hernández Quiroz

(Honorific Mention in final defense)

Faculty of Science, UNAM, B. S. in Mathematics, Spring 2009

Area: Topology

Project: Arc-like Continua

Supervisor: Beatriz Puga Espinosa

Massachusetts Institute of Technology, Visiting student, Fall 2015

Project: Arithmetical Truths

Supervisor: Agustín Rayo

Areas of Specialization

Metaphysics; Formal Epistemology; Philosophy of Language; Philosophy of Mathematics; Philosophy of Science; Logic; Ethics of Technology

Areas of Competence

Philosophical Logic; Algebra; Topology; Feminist Philosophy; Ethics of Technology; Philosophy of Logic

Grants and Awards

Distinction from the Researchers National System (Candidacy level) #331171

Granted by the National Council for Science and Technology (CONACyT)

January, 2022 – December, 2025

(Monthly amount: 450 USD)

Best Graduate Student Paper Award

Granted by the University of Miami Department of Philosophy, College of Arts and Sciences

Fall, 2021

Essay: *Numbers as properties*

(Total amount: 250 USD)

Ethics and Philosophy Summer Internship

Granted by the University of Miami Department of Philosophy, College of Arts and Sciences, Offices of the Provost and the Vice Provost for Research, and the UM Ethics Programs

Summer, 2020

Project: *An account of natural numbers*

(Total amount: 3000 USD)

Woman in Philosophy of the Month

Named by SWIP–Analytic Mexico. The purpose of this recognition is to publicize and promote the work of women philosophers in Mexico. It is awarded to women who contribute knowledge through teaching, research, and the popularization of philosophy in Mexico.

November, 2020

Ethics and Philosophy Summer Internship

Granted by the University of Miami Department of Philosophy, College of Arts and Sciences, Offices of the Provost and the Vice Provost for Research, and the UM Ethics Programs

Summer, 2019

Project: *Referential Uses of Quantifier Phrases*

(Total amount: 3000 USD)

Ethics and Philosophy Summer Internship

Granted by the University of Miami Department of Philosophy, College of Arts and Sciences, Offices of the Provost and the Vice Provost for Research, and the UM Ethics Programs

Summer, 2018

Project: *Dissolving Benacerraf's Tension*

(Total amount: 3000 USD)

Travel Grant (to attend the 16th International Congress on Logic, Methodology and Philosophy of Science and Technology)

Division of Logic, Methodology and Philosophy of Science and Technology of the International Union of History and Philosophy of Science and Technology

August 2019 (Czech Academy of Science)

(Total amount: 1000 USD)

College of Arts and Sciences Graduate Student Travel Award

Max and Peggy Kriloff Student Travel Scholarship

January 2019 (College of Arts and Sciences, University of Miami)

(Total amount: 400 USD)

Graduate Activity Fee Allocation Committee Award

January 2019 (GAFAC, UM)

(Total amount: 1150 USD)

Financial Support for Doctoral Dissertation

Granted by the Program of Support for Research Projects and Technological Innovation (Project *Numerical Terms and Scalar Implicatures*), PAPIIT-401115.

Spring 2017

(Total amount: 5000 USD)

National Scholarship for the High Quality Postgraduate Programs (Ph.D.)

Granted by The National Counsel of Science and Technology (CONACyT), scholarship #356797

Spring 2013 - Fall 2016

(Total amount: 35,000 USD)

Investment in Knowledge Scholarship

Granted by CONACyT

Fall 2015

(Total amount: 7,500 USD)

Best M.A. National Philosophy Thesis of 2012 in Mexico

Named by the Philosophical Association of Mexico, A.C.

(Amount awarded: 3,000 USD)

National Scholarship for the High Quality Postgraduate Programs (M.A.)

Granted by The National Counsel of Science and Technology (CONACyT), scholarship #310634

Fall 2010 - Spring 2012

(Total amount: 13,200 USD)

Presentations

1. Mathematics and Gödel (science popularization website), January, 2024
Communication of Science Interviews *Live Streaming* (by invitation)
From Logic and Language to Science and Technology
2. 1st South American Logic Meeting, January, 2024
Logica Universalis Association, Peru's Society for Epistemology and Logic – SEPLO,
(UNSAAC – Cusco, Peru)
Formal Epistemology From a Microcosm
3. International Congress of Logic, Methodology and Philosophy of Science and Technology
(CLMPST, Buenos Aires), July, 2023
Mathematics, Modality and Knowledge Symposium
Mathematical Grounding
4. Pontifical Catholic University of Peru (PUCP), June, 2022
Thursdays of logic (by invitation)
Tailor your logic with modal operators
5. Physics and Feynman (science popularization website), March, 2022
International Women's Day *Live Streaming* (by invitation)
What would you say to girls and young women who want to get into STEM fields?
6. National University of Colombia, January, 2022
Interview *World Logic Day* (by invitation)
Admirable Mathematical Logic and its Philosophical Importance
7. LogicaMX (popularization website on logic), January, 2022
Dialogue *World Logic Day* (by invitation)
Logic and Metaphysics of Properties
8. Physics and Feynman (science popularization website), October, 2021
Scientific Interviews *Live Streaming* (by invitation)
Mathematical Truth
9. CCH (Sciences and Humanities College), UNAM, September, 2021
Conference *Mathematical World* (by invitation)
The Philosophy of Mathematics
10. Faculty of Sciences, UNAM, September, 2021
Mathematical Orientation Colloquium (by invitation)

Do you like math? Prove it!

11. The Chronoscope Corner, Oral Narration and Cultural Management Association, September, 2021
Podcast *Corner talks* (by invitation)

2 + 2 = 4 but... I have different data!

12. Faculty of Sciences, UNAM, September, 2020
Mathematical Orientation Colloquium (by invitation)

Modal Logic and its Applications: A Good Extension of Standard Logic

13. AML (Mexican Logic Academy); School of Philosophy of The Pan American University, August, 2020 (by invitation)

Challenges and opportunities of Teaching Logic in Virtual Environments (Teaching of Logic)

14. Roads to Reference, Workshop, July, 2020 (by invitation)

Referential Uses of Arabic Numerals (Philosophy of Language; Philosophy of Mathematics)

15. The University of the West Indies, Cave Hill Campus, Barbados, April 2020
Cave Hill Philosophy Symposium, Conversations XV: Language—Uses and Misuses

Shutting-down terms (Philosophy of Language)

16. Vrije Universiteit Brussel, December 2019
Workshop on Explanation and Understanding within Mathematics

Models and modes of explanatory mathematical proofs (Philosophy of Mathematical Practice)

17. University of Miami, November 2019
Research Forum

Mathematical Explanation (Philosophy of Mathematical Practice)

18. The Institute of Philosophy of the Czech Academy of Sciences, August 2019
16th International Congress on Logic, Methodology and Philosophy of Science and Technology

Numbers as properties; dissolving Benacerraf's Tension (Philosophy of Mathematics)

19. University of Miami, August 2019
Workshop, Ethics Internship, Summer 2019

Referential Uses of Quantifier Phrases (Philosophy of Language)

20. Texas Tech University, April 2019
13th Annual Annual Philosophy Graduate Student Conference: Philosophy of Language

Referential Uses of Quantifier Phrases (Philosophy of Language)

21. University of Cambridge, January 2019
Twelfth Annual Cambridge Graduate Conference on the Philosophy of Mathematics and Logic

Dissolving the Tension Between Metaphysics and Epistemology of Numbers (Philosophy of Mathematics)

22. University of Miami, October 2018

Philosophy Research Forum

The Realist (about numbers) Challenge. (Philosophy of Mathematics)

23. Faculty of Science, UNAM, August 2017

Mathematical Orientation Colloquium (by invitation)

Foundations, Paradoxes and why it is True that $2 + 2 = 4$ (Mathematics, Logic and Philosophy)

24. Autonomous University of the Mexican State, May 2017

Philosophy of Mathematics Seminar (by invitation)

Philosophical Aspects of Arithmetical Truth (Mathematics, Logic and Philosophy)

25. Massachusetts Institute of Technology, January 2016

Language, Logic, Metaphysics, and Mind Seminar

26. Wiener Forum für Analytische Philosophie, September 2016

5th WFaP Graduate Conference

27. Smith College, May 2016

Graduate Women in Metaphysics Workshop

28. Faculty of Philosophy, UNAM, February 2015

Congress of History and Philosophy of Logic and Mathematics (in Spanish)

Numbers as properties: Dissolving Benacerraf's tension (Philosophy of Mathematics)

29. Philosophical Research Institute, UNAM, August 2016

Colors, Sounds, Numbers, Names, Inferences, Minds

Comments on "On Kripke's Analysis of Natural Numbers" by Oliver Marshall (Philosophy of Mathematics)

30. Philosophical Research Institute, UNAM, June 2016

Philosophy of Modality Workshop

Comments on "Modal Epistemology and Mathematical Epistemology" by Otávio Bueno (Philosophy of Mathematics)

31. Philosophical Research Institute, UNAM, March 2016

2nd IIFs-UNAM Philosophy Graduate Conference

Knowledge in Sudoku: Formal epistemology in a microcosm (Formal Epistemology)

32. Philosophical Research Institute, UNAM, November 2014

Associate Students Seminar (in Spanish)

Knowledge in Sudoku: Formal epistemology in a microcosm (Formal Epistemology)

33. Institute of Mathematics, UNAM, November 2009
J.J. Charatonik Seminar on Continuum Theory and its Hyperspaces (in Spanish)

Models and properties of $C_e(X)$ hyperspaces (Topology of Sets)

34. Institute of Mathematics, UNAM, November 2006
J.J. Charatonik Seminar on Continuum Theory and its Hyperspaces (in Spanish)

Every continuum like an arc is a continuum like a ball (Topology of Sets)

Publications

Papers

1. "Formal Epistemology From a Microcosm"
South American Journal of Logic, (forthcoming), 2024. ISSN 2446-6719.
2. "Numbers as Properties"
Synthese, 114(202): 1–23, 2023. DOI: <https://doi.org/10.1007/s11229-023-04330-z>
3. "Logic, Formal Languages and Modality"
[in Spanish] (With Otávio Bueno), *Andamios Revista de Investigación Social*, 20(53): 57–72, 2023.
DOI: <https://doi.org/10.29092/uacm.v20i53.1030>
4. "Dismissing ideological debates with words: shutting-down terms"
[in Spanish]. In M. J. Martínez Martínez, and A. G. Bustos Arellano, editors, *Women who formed us in philosophy*, Literary Collection of the Center for Humanistic Studies, vol. 11, Nuevo Leon Autonomous University, 102–117, 2022 ISBN 978–607–27–1614–8
5. "Referential uses of Arabic Numerals"
Manuscrito–International Journal of Philosophy, 43(4): 1–23, 2020. DOI: 10.1590/0100-6045.2020.V43N4.MV
6. "Resisting Non-causal Explanations"
Analysis, 79: 550–559, 2019. DOI: <https://doi.org/10.1093/analys/anz050>
7. "Natural Numbers: different methodologies that converge in the analysis of their nature and how we understand them"
[in Spanish], *Crítica. Revista Hispanoamericana De Filosofía*, 51(153), 2019. ISSN 1870-4905
8. "Logic and its Applications: Platonism or non-Platonism?"
[in Spanish] (With Otávio Bueno), *Andamios Revista de Investigación Social*, 41(16): 19–41, 2019.
DOI: <https://doi.org/10.29092/uacm.v16i41.713>

Books

Vivanco, M. (2024), *Bridges from Theory to Practice: Ethics, Technology & Society*, Dubuque, IA., Kendall Hunt, (forthcoming).

Vivanco, M. G. (2011), *Didactic Guide for Teachers, Fractal 1, Mathematics*, Benito Juárez, Mexico: SM Ediciones. ISBN 13 978-607-471-928-4. ISBN 10 607-471-928-4

Vivanco, M. G. (2011), *Didactic Guide for Teachers, Mathematics 1, Community*, Benito Juárez, Mexico: SM de Ediciones. ISBN 13 978-607-471-931-4, ISBN 10 607-471-931-4

Vivanco, M. G., Manrique, E. G. , Espinosa, J. M. & Vargas, A. Q. (2012), *Community of Mathematics 1, Secondary level, Didactic Guide*, Benito Juárez, Mexico: SM de Ediciones. ISBN 13 978-607-24-0429-8, ISBN 10 607-24-0429-4

Vivanco, M. G., Domínguez, E. G., Pedraza, E. B. & Manrique, E. G. (2014), *Didactic Guide, Mathematics 3, Secondary level, Connect Strategies*, Benito Juárez, Mexico: SM de Ediciones, ISBN 13 978-607-24-0887-6, ISBN 10 607-24-0887-7

Research Projects

Pluralizing Philosophical Languages and Cultures in the South Texas Borderlands

Granted by the American Philosophical Association

2024

Numerical Terms and Scalar Implicatures

Financed by the Program of Support for Research Projects and Technological Innovation, PAPIIT-401115

2015–2017

Philosophical Aspects of Modality

Financed by the National Council for Science and Technology, CONACyT-16502

2011–2016

Knowledge and Skepticism

Financed by the Program of Support for Research Projects and Technological Innovation, PAPIIT-400513

2012–2015

Teaching

Philosophy

1. Graduate level

Graduate Program in Philosophy and Graduate Program in Philosophy of Science, UNAM

Philosophy of Arithmetic, Spring 2023

Logic and Philosophy of Modality, Fall 2022

2. Undergraduate level

Professor at the University of Texas - Rio Grande Valley

PHIL 2326X – Bilingual Section of Ethics, Technology & Society, Spring 2024

PHIL 2326 – Ethics, Technology & Society, Fall 2023, Spring 2024

Instructor at the University of Miami

PHI109 – The Superhuman Mind: An Introduction to Philosophy of Mind, Fall 2022

PHI338 – Philosophy and Feminism (Feminist Philosophy of Technology), Spring 2022

PHI115 – Social and Ethical Issues in Computing, Spring 2020 and Spring 2022

PHI101– Introduction to Philosophy, Fall 2018–Spring 2020

Lecturer at the College of Sciences, UNAM (Spring 2013–Fall 2015):

Seminar on Philosophy of Science I

Seminar on Philosophy of Science II

Seminar on Philosophy of Mathematics I

Teaching Assistant at the College of Philosophy and Literature, UNAM:

Philosophy of Language (Gómez-Torrente; Summer 2014, Spring 2016, Spring 2017)

Mathematics

Lecturer at the College of Sciences, UNAM (Spring 2008–Spring 2017; Fall 2020–Fall 2022):

Advanced Algebra I (eleven semesters)

Advanced Algebra II (fourteen semesters)

Linear Algebra I (five semesters)

Linear Algebra II

Topology I (two semesters)

Topology II

TA at the College of Sciences, UNAM (Spring 2005–Fall 2007):

Advanced Algebra I (two semesters)

Advanced Algebra II

Linear Algebra I

Modern Algebra I

Topology I (three semesters)

Topology II

Seminar on Topology A

Set Theory I

Online Teaching

Online Advisor in Long Distance Learning (High School Studies)

Teaching, programming, designing and updating courses (working on *Moodle* platform)

Ministry of Public Education of the Federal District (2008–2015)

Program *SEP-preparate*, National Ministry of Public Education (2008–2009)

Benito Juárez Autonomous University of Oaxaca (2010)

Program *Together online*, B@UNAM (2007–2010)

Mathematics & Economy

Logic

Algebra & Physics

Online Advisor at the Long Distance High School, B@UNAM

Coordination of Open University and Long Distance Education, UNAM (2008)

Long Distance University of Mexico, UnADM, Mexican State (2009)

College Preparation course of Mathematics

Online Advisor for the System of Open University and Long Distance Education

National Autonomous University of Mexico (2009 and 2010)

Strategic Thinking

Oral and Written Argumentation

Online Logic Teachers Trainer for Technological High School

Logic Platform, COSDAC–SEMS, Ministry of Public Education (2015–2016)

Online Professor, Masters in Evaluation of Education

College of Psychology, UNAM–INEE (2015–2016)

Secondary School Level

Teacher at the National High School, School #4 (Fall 2008–Summer 2010)

Higher Education Institute of the Federal District, Coyoacan (Spring–Fall 2018)

Algebra

Geometry

Calculus

Service

1. Organizer committee member of the *74th Annual Meeting of the New Mexico Texas Philosophical Society*

UTRGV Brownsville, Tx, April 2024

2. Organizer of the *Mathematics, Modality and Knowledge Symposium* at the 17th CLMPST: Science and Values in an Uncertain World

Buenos Aires, June 2023

3. Committee member on Edgar Omar Velazquez Escamilla defense: “Categorical aspects of the Maupertius formalism and topological quantization”

College of Sciences, UNAM, February 2022

4. Convener of the *Mathematical Orientation Colloquium*
College of Sciences, UNAM, September 2021
5. Peer Reviewer for *Synthese*, August 2021
6. Peer Reviewer for *Colombian Journal of Philosophy of Science*, April 2021
7. Third Annual Inclusiveness Conference Co-organizer
University of Miami, 2018
8. The 3rd IIFs-UNAM Philosophy Graduate Conference Organizer
Institute of Philosophical Research, UNAM 2017
9. Transcription of the book *Hyperspaces of sets* by Sam B. Nadler, Jr.
Originally edited by Marcel Decker and published by the Mexican Mathematical Society in 2006
10. Committee member on Miguel Ángel Corona García defense: "Topological applications with continuous functions"
College of Sciences, UNAM, October, 2009
11. Convener of the Seminar *JJ Charatonik of Continua Theory*
Institute of Mathematics, UNAM, Fall 2007-Fall 2008
12. Convener of the Students Workshop of Continua Theory
Institute of Mathematics, UNAM, 2007
13. Mexican Mathematical Olympiad Co-organizer, 2005