

Melisa Vivanco

Assistant Professor, 2023–present
Department of Philosophy
The University of Texas - Rio Grande Valley
melisa.vivanco@utrgv.edu
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 #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)

Monthly *Woman in Philosophy*

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. Imagination, Creativity, and Intelligence, December 12, 2024
In memory of Newton da Costa, Rio de Janeiro, Brazil (Keynote speaker)
Bridges from Theory to Practice: Ethics and Technology
2. φ -Research Forum, November 08, 2024
University of Texas - Rio Grande Valley
Philosophy Department
Technological Bridges to Injustice
3. Colloquium on the 300th anniversary of Immanuel Kant, September 2024
UVFV, Professional School of Philosophy, Lima, Peru
Kant and Logic: Contemporary Reflections, Round table (by invitation)
Lógica: la profecía autoincumplida de Kant
4. Wednesday Talks for Participants of the Mathematics Olympiad, July 2024
Gauss–Galois Project for Latin America (by invitation)
Entre paradojas y fundamentos. . . Buscando la verdad matemática
5. Shifting the Geography of Reason XXII: Decolonizing Epistemologies, June 2024
Caribbean Philosophical Association, Quintana Roo, Mexico
Centrar la frontera: Teaching Philosophy Classes Bilingually in the South Texas Borderlands
(As a panelist)
6. B3 Course Designation Workshop, June 2024
University of Texas Rio Grande Valley (by invitation)
A Bilingual Teaching Experience
7. American Association of Mexican Philosophers 13th Annual Conference, June 2024
University of California, Davis
Grounding Mathematical Model
8. Philosophy Department Colloquium Series, April 2024
University of Nevada, Las Vegas (by invitation)
Number-Properties: Existence in a Homogeneous Reality
9. 74th Annual Meeting of the New Mexico Texas Philosophical Society, April 2024
University of Texas Rio Grande Valley
Referential Uses of Quantifier Phrases
Comments on *Muddy Waters: The Meaninglessness of "The Meaning of 'Meaning'"* by Paul Saka

10. Philosophy Department Colloquium, March 2024
University of Miami (by invitation)
Formal Epistemology From a Microcosm
11. Science Dissemination Symposium, International Women's Day, March 2024
Química y Curie *Live Streaming* (by invitation)
Universal Inspiration 42
12. Mathematics and Gödel (science popularization website), January 2024
Communication of Science Interviews *Live Streaming* (by invitation)
From Logic and Language to Science and Technology
13. 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
14. International Congress of Logic, Methodology and Philosophy of Science and Technology
(CLMPST, Buenos Aires), July 2023
Mathematics, Modality and Knowledge Symposium
Mathematical Grounding
15. Pontifical Catholic University of Peru (PUCP), June 2022
Thursdays of logic (by invitation)
Tailor your Logic with Modal Operators
16. 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?
17. National University of Colombia, January 2022
Interview *World Logic Day* (by invitation)
Admirable Mathematical Logic and its Philosophical Importance
18. LogicaMX (popularization website on logic), January 2022
Dialogue *World Logic Day* (by invitation)
Logic and Metaphysics of Properties
19. Physics and Feynman (science popularization website), October 2021
Scientific Interviews *Live Streaming* (by invitation)
Mathematical Truth

20. CCH (Sciences and Humanities College), UNAM, September 2021
Conference *Mathematical World* (by invitation)
The Philosophy of Mathematics
21. Faculty of Sciences, UNAM, September 2021
Mathematical Orientation Colloquium (by invitation)
Do you like math? Prove it!
22. The Chronoscope Corner, Oral Narration and Cultural Management Association, September 2021
Podcast *Corner talks* (by invitation)
 $2 + 2 = 4$, but... *I have different data!*
23. Faculty of Sciences, UNAM, September 2020
Mathematical Orientation Colloquium (by invitation)
Modal Logic and its Applications: A Good Extension of Standard Logic
24. 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)
25. Roads to Reference, Workshop, July 2020 (by invitation)
Referential Uses of Arabic Numerals (Philosophy of Language; Philosophy of Mathematics)
26. 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)
27. Vrije Universiteit Brussel, December 2019
Workshop on Explanation and Understanding within Mathematics
Models and Modes of Explanatory Mathematical Proofs (Philosophy of Mathematical Practice)
28. University of Miami, November 2019
Research Forum
Mathematical Explanation (Philosophy of Mathematical Practice)
29. 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)
30. University of Miami, August 2019
Workshop, Ethics Internship, Summer 2019

Referential Uses of Quantifier Phrases (Philosophy of Language)

31. Texas Tech University, April 2019
13th Annual Annual Philosophy Graduate Student Conference: Philosophy of Language
Referential Uses of Quantifier Phrases (Philosophy of Language)
32. 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)
33. University of Miami, October 2018
Philosophy Research Forum
The Realist (about numbers) Challenge. (Philosophy of Mathematics)
34. 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)
35. Autonomous University of the Mexican State, May 2017
Philosophy of Mathematics Seminar (by invitation)
Philosophical Aspects of Arithmetical Truth (Mathematics, Logic and Philosophy)
36. Massachusetts Institute of Technology, January 2016
Language, Logic, Metaphysics, and Mind Seminar
37. Wiener Forum für Analytische Philosophie, September 2016
5th WFaP Graduate Conference
38. Smith College, May 2016
Graduate Women in Metaphysics Workshop
39. 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)
40. 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)
41. Philosophical Research Institute, UNAM, June 2016
Philosophy of Modality Workshop

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

42. Philosophical Research Institute, UNAM, March 2016
2nd IIFs-UNAM Philosophy Graduate Conference

Knowledge in Sudoku: Formal Epistemology in a Microcosm (Formal Epistemology)

43. Philosophical Research Institute, UNAM, November 2014
Associate Students Seminar (in Spanish)

Knowledge in Sudoku: Formal Epistemology in a Microcosm (Formal Epistemology)

44. 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)

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

Every Arc-like Continuum is a Ball-like Continuum (Topology of Sets)

Publications

Papers

1. "Social Imagination and the Ethics of Technology"

In Beziau, J.Y., D'Ottaviano, I., Gracher, K., Krause, D., & Vosokolskis, S., *Imagination, Creativity, and Intelligence; In Memory of Newton da Costa*, Studies in Universal Logic, Springer Nature, (forthcoming), 2025.

2. "Technology Uses and Non-Uses: Epistemic Injustice at the Border"

In Butler, M. & Werkheiser, I., *Finding Our Place in the Digital World: Philosophical Essays on Technology, Phenomenology, and the Environment*, Springer, (forthcoming), 2025.

3. "Infinite Practices, One Mathematics: A Challenge for Mathematical Pluralism"

Journal for General Philosophy of Science, (forthcoming), 2024.

4. "Shapes, Figures and Spaces: Foundations of Geometry(ies)"

[in Spanish], *Crítica. Revista Hispanoamericana De Filosofía*, (forthcoming), 2024. ISSN 1870-4905

5. "The Arbitrariness of Symmetry in Mathematical Proofs"

RHV International Journal of Philosophy (25): 129–148, 2024.

DOI: <https://doi.org/10.22370/rhv2024iss25pp129-148>

6. "Referential Uses of Quantified Descriptions"

Southwest Philosophical Studies, (forthcoming), 2024. ISSN 0885-9310.

7. "Numbers as Properties"

Synthese, 114(202): 1–23, 2023. DOI: <https://doi.org/10.1007/s11229-023-04330-z>

8. "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>

9. "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

10. "Referential uses of Arabic Numerals"

Manuscrito–International Journal of Philosophy, 43(4): 1–23, 2020. DOI: 10.1590/0100-6045.2020.V43N4.MV

11. "Resisting Non-causal Explanations" (With Otávio Bueno)

Analysis, 79: 550–559, 2019. DOI: <https://doi.org/10.1093/analys/anz050>

12. "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

13. "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. ISBNs Print: 9798385125944, eBook: 9798385125951

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

Participation in Research Projects

Educating the Next Generation of Hispanic Leaders in Neuroscience Research

National Institutes of Health (NIH) Neuroscience Development for Advancing the Careers of a Diverse Research Workforce Grant

2024

Border Corpora: AI Modeling of Lived Border Experiences

NEH Digital Humanities Advancement Grant

2024

Dialogic and Intersectional Foundations of the 4-trans Approach in Multilingual Teacher Education

College of Education and P-16 Integration Small Grants Program

September 2024

Surveillance and A.I. at the US-Mexico Border: Migration, Asylum, and Local Community Impacts

Submitted to the NEH grant, Dangers and Opportunities of Technology: Perspectives from the Humanities

September 2024

Pluralizing Philosophical Languages and Cultures in the South Texas Borderlands

Granted by the American Philosophical Association

Spring 2024

Numerical Terms and Scalar Implicatures

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

2015–2017

Philosophical Aspects of Modality

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

2011–2016

Knowledge and Skepticism

Funded 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. Fall 2024
PHIL 2326 – Ethics, Technology & Society, Fall 2023 - Fall 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

PHIL 2326-OL Ethics, Technology, and Society,

Teaching, designing, and updating courses (*Blackboard* platform)

University of Texas Rio Grande Valley (2024–2025)

Online Instructor (*Blackboard* platform)

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

University of Miami, Fall 2022

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. Peer Reviewer for *Synthese*, January 2025
2. Program committee of the New Mexico Texas Philosophical Society Annual Meeting
Reviewer of proposals, 2025
3. B3 Scholarship and Student Connection (S&SC) Service Fellow
Co-organizer of the *B3 Scholar Ceremony*, Fall 2024
4. Co-founder and organizer of the φ *Research Forum*
Work in Progress Seminar for faculty in the Philosophy Department at UTRGV, Fall 2024
5. Convener of the *School of Interdisciplinary Programs & Community Engagement 4th Annual Conference*
Navigating Ethical Challenges: Interdisciplinary Research and Ethical Dilemmas
6. Peer Reviewer for *Southwest Philosophy Review*, April 2024
7. Peer Reviewer for *Organon F, International Journal of Analytic Philosophy*, April 2024
8. Inaugural Advisory Committee member.
UTRGV – Center for Collaboration and Ethics, Starting from February, 2024
9. Convener of the *74th Annual Meeting of the New Mexico Texas Philosophical Society*
UTRGV Brownsville, Tx, April 2024
10. Organizer of the *Mathematics, Modality and Knowledge Symposium* at the 17th CLMPST: Science and Values in an Uncertain World
Buenos Aires, June 2023
11. Committee member on Edgar Omar Velazquez Escamilla defense: “Categorical aspects of the Maupertius formalism and topological quantization”
College of Sciences, UNAM, February 2022
12. Convener of the *Mathematical Orientation Colloquium*
College of Sciences, UNAM, September 2021
13. Peer Reviewer for *Synthese*, August 2021
14. Peer Reviewer for *Colombian Journal of Philosophy of Science*, April 2021
15. Third Annual Inclusiveness Conference Co-organizer
University of Miami, 2018
16. The 3rd IIFs-UNAM Philosophy Graduate Conference Organizer
Institute of Philosophical Research, UNAM 2017
17. 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
18. Committee member on Miguel Ángel Corona García defense: “Topological applications with continuous functions”
College of Sciences, UNAM, October, 2009
19. Convener of the Seminar *JJ Charatonik of Continua Theory*
Institute of Mathematics, UNAM, Fall 2007–Fall 2008
20. Convener of the Students Workshop of Continua Theory
Institute of Mathematics, UNAM, 2007
21. Mexican Mathematical Olympiad Co-organizer, 2005

Professional Associations Membership

1. The Caribbean Philosophical Association. (May 2024 – Present)
2. New Mexico Texas Philosophical Society. (April 5, 2024 – Present)
3. American Association of Mexican Philosophers. (September 1, 2023 – Present)