

# Sebastián Murgueitio Ramírez

## Curriculum Vitae

Department of Philosophy  
History and Philosophy of Science Program  
University of Notre Dame  
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### Specialization

AOS Philosophy of Physics, Philosophy of Science, Metaphysics

AOC Applied ethics (esp. Emergent technologies), HOPOS

### Education

2015–present **PhD Candidate in History and Philosophy of Science**, *University of Notre Dame*.

2017–present **Masters in Physics**, *University of Notre Dame*.

2009–2014 **BA in Physics**, *Universidad de los Andes*, Thesis: Weak Measurements and Backward Causation.  
Supervisor: Alonso Botero.

2009–2014 **BA Philosophy**, *Universidad de los Andes*, Thesis: Phil Dowe's Causation Theory and the problem of negative causation.  
Supervisor: Andrés Páez

### Publications

#### Books

2018 *Física Paso a Paso*, Bogotá, Colombia: Ediciones Uniandes. (Link).

#### Book Reviews

2017 One Hundred years of general relativity (with Katherine Brading and Laura Wells), *Metascience*

### Works in progress (co-authored work is fully collaborative unless indicated otherwise)

#### Under Review

Separating Einstein's Separability

Measuring Absolute Velocity (with Ben Middleton)

Against Epistemic Theories of Counterpossibles (with Mack Sullivan)

Counteronomics for Dispositionalists (with Xavi Lanao)

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## Presentations

### Peer Reviewed

- 2019 June, Philosophy of Logic, Mathematics, and Physics Graduate Conference, Western University, Canada  
*What is separability ... and what is not?*
- 2018 November, Philosophy of Science Association Biennial Meeting, Seattle, USA  
*Separating Separability*
- 2018 August, 4th Society for the Metaphysics of Science Conference, Milan, Italy  
*Defending Nomologically Impossible Dispositions*
- 2018 May, Fifth Colombian conference on logic, epistemology and philosophy of science (ALFAn V - PHILOGICA V), Villa de Leyva, Colombia  
*What is "separability" in quantum mechanics and how was it used by Einstein?*
- 2017 March, Pitt-CMU Graduate Student Philosophy Conference, Pittsburgh, USA  
*Problems for a counterfactual theory of causation by omission*
- 2014 February, Third Colombian conference on logic, epistemology and philosophy of science, Bogotá, Colombia  
*Beebe and Dowe on the Problem of Negative Causation*

### Presented by co-authors

- 2014 August, International Workshop on Quantum Coherence and decoherence II (IWQCDII), Medellín, Colombia  
*Coupling the continuous and discrete variables of photons: Applications to weak measurements and decoherence* (presented by Juan Rafael Alvarez)

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## Teaching (TA = full responsibility for weekly classes and marking formative and summative work.)

- Spring 2018 Primary Instructor, The Ethics of Emergent Weapons and Technologies, University of Notre Dame (I taught 21 of the 29 sessions, Maj. Gen. Robert H. Latiff taught the other sessions)
- Summer 2017 TA, Leadership Seminar, Science Ethics and Responsibility (Pre-college program), University of Notre Dame
- Spring 2017 TA, The Ethics of Emergent Weapons and Technologies (Fritz Allhoff), University of Notre Dame
- Spring 2015 Primary Instructor, Physics 1 Problems Session, Universidad de los Andes
- Fall 2014 Primary Instructor, Physics 1 Problems Session, Universidad de los Andes
- Spring 2012 TA, Logic 1 (Tomás Barrero), Universidad de los Andes

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## Awards and Scholarships

- 2019 Luksic Family Collaboration Grant (\$8494) for the project "Aid Digital Transformation at Bibliotecas UC Pontificia Universidad Católica de Chile through complementary on-site Training and Consultation work" (project in collaboration with a team led by Natalie Meyers)

- 2018 Graduate Student Union Conference Presentation Grant (\$250), University of Notre Dame
- 2018 Notebaert Professional Development Award (\$1,809.00), University of Notre Dame
- 2018 Notebaert Professional Development Award (\$1,315.00) (Declined), University of Notre Dame
- 2014 Best Score in the country in the National Higher Education Exam (“Saber Pro”) for physics
- 2013 Semestral Excellence distinction, Universidad de los Andes
- 2009 Alberto Magno Scholarship (80% of the tuition of the first semester), Universidad de los Andes

## Professional Development

- 2018 Pedagogy Workshop (one-credit course), University of Notre Dame
- 2018 June, participant of the XXI International Summer School in Philosophy of Physics (on the philosophy of Quantum Field Theory), Urbino, Italy
- 2018 July, participant of the First Biennial Midwest Summer School in Philosophy of Physics, Chicago, USA
- 2017-2018 Ethical Leaders in STEM, National Science Foundation (\$1400.00), University of Notre Dame
- 2017 June, participant and presenter of a poster in the Solstice of Foundations, Quantum Foundations Summer School, ETH, Zurich  
Poster: On the preparation independence assumption in the PBR theorem.
- 2016 Participant and presenter of a poster in the International Summer Institute in Philosophy of Physics on the Philosophy of Quantum Gravity, Williams Bay, Wisconsin, USA.  
Poster: On the PBR theorem

## Professional Service

- Referee *Studies in History and Philosophy of Modern Physics, Studies in History and Philosophy of Science.*
- 2018 In charge of digitizing the 36 issues of the journal *Epistemological Letters* (Link).
- 2018– Present Member of the *Departmental Climate Committee, University of Notre Dame.*
- 2017– Present Mentor in the *Undergraduate Mentorship in the Philosophy and Minorities Program*, University of Notre Dame.
- Fall 2018 Co-organizer of the *The Philosophy and Physics of Noether’s Theorems* (a Centenary Conference on the 1918 work of Emmy Noether), University of Notre Dame at London.
- Spring 2018 Organizer of the *First Graduate Student Conference on Philosophy of Physics*, University of Notre Dame.

- 2017 August, paper commentator in the 3th Society for the Metaphysics of Science Conference, New York  
Comments on Baptiste' Le Bihan paper "All the way down into the non-spatial"

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### Graduate Coursework (selected) (\* = audited)

- Fall 2019 Philosophy of Physics: Symmetries, Nic Teh, University of Notre Dame  
Fall 2019 Mathematical Methods in Physics, Janko Boldiszar, University of Notre Dame  
Spring 2019 Statistical Mechanics, Zoltán Toroczkai, University of Notre Dame  
Spring 2019 Topics in Topology II: Introduction to conformal field theory, Pavel Mnev, University of Notre Dame  
Fall 2017 Classical Mechanics, Zoltán Toroczkai, University of Notre Dame  
Fall 2017 Contemporary Ethics, Jim Sterba, University of Notre Dame  
Fall 2017 Material beings\*, Peter van Inwagen, University of Notre Dame  
Spring 2017 Intermediate Logic, Tim Bays, Notre Dame  
Spring 2017 Further Topics in Philosophy of Science\*, James Nguyen, University of Notre Dame  
Spring 2017 Topics in Philosophy of Physics, Nicholas J. Teh, Notre Dame  
Spring 2017 Models and Representation\*, James Nguyen, University of Notre Dame  
Spring 2017 History, Science, Technology and Medicine since 1750, Chris Hamlin, University of Notre Dame  
Spring 2017 Quantum Field Theory II\*, John M. LoSecco, University of Notre Dame  
Fall 2016 Quantum Field Theory I, John M. LoSecco, University of Notre Dame  
Fall 2016 Einstein's Philosophy of Science, Don Howard, University of Notre Dame  
Fall 2016 Possible and Impossible Worlds, Daniel Nolan, University of Notre Dame  
Fall 2016 The Problem of Free Will, Peter van Inwagen, University of Notre Dame  
Spring 2016 Space, Time, Matter, Katherine Brading and Nicholas Teh, University of Notre Dame  
Spring 2016 HOPOS from the Scientific Revolution to 1900, Don Howard, University of Notre Dame  
Spring 2016 Hume, Lynn Joy, University of Notre Dame  
Spring 2016 Experience and Experiments in Early Modern and Medieval Science, Evan Ragland, University of Notre Dame  
Fall 2016 First-Year Proseminar, Therese Cory, University of Notre Dame  
Fall 2016 Ancients, Medievals and Moderns, Lynn Joy and Robert Goulding, University of Notre Dame  
Fall 2016 Philosophy of Science, Anjan Chakravartti, University of Notre Dame

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### References

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