

William D'Alessandro

Education

University of Illinois at Chicago

- PhD, Philosophy (2017)
- MS, Mathematics (to be conferred December 2019)

Canisius College, Buffalo, New York

- BA (Honors), *magna cum laude*, Philosophy (2006)

Employment

University of Illinois at Chicago

- Instructor, School of Public Health (2018—present)
- Lecturer, Department of Philosophy (2018—present)

North Central College

- Instructor, Department of Philosophy (Fall 2017)

Areas of Specialization

Philosophy of science, metaphysics, philosophy of mathematics

Areas of Competence

Epistemology, aesthetics, logic, ethics

Publications

“Explanation in Mathematics: Proofs and Practice”

- *Philosophy Compass*, forthcoming (DOI: 10.1111/phc3.12629), with companion Teaching and Learning Guide (DOI: 10.1111/phc3.12630)

“Viewing-as Explanations and Ontic Dependence”

- *Philosophical Studies*, 2018 (DOI: 10.1007/s11098-018-1205-5)

“Arithmetic, Set Theory, Reduction and Explanation”

- *Synthese*, 2018, 195: 5059-5089

“Mathematical Explanation Beyond Explanatory Proof”

- *British Journal for the Philosophy of Science*, 2017 (DOI: 10.1093/bjps/axy009)

“Explicitism about Truth in Fiction”

- *British Journal of Aesthetics*, 2015, 56: 53-65

Work in Progress

“Proving Quadratic Reciprocity: Explanation, Disagreement, Transparency and Depth”

- My MS thesis in mathematics, supervised by Ramin Takloo-Bighash; under review

“Bokulich on Model Explanation”

- Under review

“Is It Bad to Prefer Attractive Partners?”

- Under review

Presentations

“Bokulich on Fictions, Models and Explanation”

- To be presented at Pacific APA (San Francisco, Apr. 2020)

“Proving Quadratic Reciprocity: Explanation, Transparency, Depth and Disagreement”

- To be presented at Texas A&M University (invited talk, Dec. 2019)
- To be presented at Midwest Philosophy of Mathematics Workshop (Notre Dame, Nov. 2019)

“Viewing-as Explanations and Ontic Dependence”

- Eastern APA, presented in a two-hour symposium session (New York, Jan. 2019)
- Philosophy of Science Association (Seattle, Nov. 2018)

“Is It Bad to Prefer Attractive Partners?”

- Rocky Mountain Ethics Congress (Boulder, Aug. 2018)

Commented on Conor Mayo-Wilson, “Formalization, Reliabilism, and Justification”

- Central APA (Chicago, Feb. 2018)

“Grounding, Dependence and Mathematical Explanation”

- Eastern APA (Baltimore, Jan. 2017)—recipient of the 2016 Sanders Graduate Student Award

“Mathematical Objects as Abstract Artifacts”

- Society for Exact Philosophy (Miami, May 2016)

“Intertheoretic Reduction and Explanation in Mathematics”

- Mathematical Aims Beyond Justification Workshop, Royal Flemish Academy of Belgium for Science and the Arts (Brussels, Dec. 2015)

“Explicitism about Truth in Fiction”

- American Society for Aesthetics Annual Meeting (San Diego, 2013)—graduate student travel award recipient

“Formalisms and Interpretations: The Case of Quantum Logic”

- University of Western Ontario Philosophy of Physics, Mathematics and Logic Graduate Conference (London, ON, 2011)

“Mathematical Explanation, Symmetry and Psychology”

- University of Western Ontario Philosophy of Physics, Mathematics and Logic Graduate Conference (London, ON, 2010)

Honors, Awards and Activities

Participant in the Midwest Summer School in Philosophy of Physics, University of Chicago, 2018

Excellence in Undergraduate Mentoring Award, honorable mention, UIC, 2017

2016 Sanders Graduate Student Award for “Grounding, Dependence and Mathematical Explanation”—a \$1000 prize given to “each of the three best papers in mind, metaphysics, epistemology or ethics submitted for the annual APA Eastern Division meeting by graduate students”

Institute for the Humanities Graduate Resident Fellowship, UIC, 2016-2017

Dean’s Scholar dissertation fellowship, UIC, 2015-2016—the largest and most competitive fellowship awarded to UIC graduate students

Chosen as UIC’s sole nominee for the Midwestern Association of Graduate Schools 2016 Excellence in Teaching Award

Graduate Student Teaching Award, UIC Philosophy Department, 2015

Junior Participant in Case Studies in Mathematical Practice Workshop, Université Paris Diderot, 2015

Second-prize winner in 2014 British Society of Aesthetics Essay Prize Contest, for “Explicitism about Truth in Fiction”

Ruth Marcus Award for Outstanding Graduate Student, UIC Philosophy Department, 2014

Chancellor’s Interdisciplinary Graduate Research Fellowship recipient, UIC, 2013-2014 and 2014-2015

J. Clayton Murray, S.J. Award for Outstanding Student in Philosophy, Canisius College, 2006

Teaching Experience

As primary instructor (at UIC unless otherwise specified):

- PUBH 300: **Critical Thinking in Public Health**, Fall 2018 & Fall 2019
- PHIL 110: **Ethics**, Fall 2017 (at North Central College)
- PHIL 201: **Theory of Knowledge**, Spring 2017 & Fall 2013
- PHIL 203: **Metaphysics**, Fall 2016, Spring 2014 & Fall 2011
- PHIL 204: **Philosophy of Science**, Spring 2015
- PHIL 210: **Symbolic Logic**, Fall 2014 & Spring 2012
- PHIL 202: **Philosophy of Psychology**, Summer 2013
- PHIL 101: **Introduction to Philosophy**, Spring 2013
- PHIL 102: **Introduction to Logic**, Summer 2014, Summer 2012 & Fall 2012

As teaching assistant at UIC:

- PHIL 102: **Introduction to Logic**, Spring 2011 & Fall 2019
- PHIL 202: **Philosophy of Psychology**, Spring 2019
- PHIL 102: **Introduction to Logic**, Success TA (responsible for coordinating group study with students across sections), Fall 2018 & Spring 2019
- MATH 110: **College Algebra**, Spring 2018
- PHIL 110: **Philosophy of Love and Sex**, Fall 2010
- PHIL 115: **Philosophy of Death and Dying**, Spring 2010
- PHIL 100: **Introduction to Philosophy**, Fall 2009

Service

Served as referee for MIT Press, *Mind*, *Philosophical Studies*, *Synthese*, *Erkenntnis*, *Journal for General Philosophy of Science* and the *British Journal of Aesthetics*

Co-founded and co-organized the Chicagoland Philosophy Graduate Conference, 2015-2016

Revived and helped run the UIC undergraduate Philosophy Club, 2015-2016

UIC Graduate Student Council representative, 2015-2016

Co-organized Philosophy Department Works in Progress talk series, 2013-2014

Dissertation

Dimensions of Mathematical Explanation—a set of three papers

Committee: Daniel Sutherland (chair), David Hilbert, Mahrad Almotahari, Marc Lange, Kenny Easwaran

“Arithmetic, Set Theory, Reduction and Explanation”: I claim that the reduction of arithmetic to set theory is unexplanatory, and hence, contrary to received wisdom, that not all bona fide reductions have explanatory value. In defense of this claim, I offer evidence from mathematical practice, and I respond to contrary suggestions from Maddy, Kitcher, Quine and others.

“Mathematical Explanation Beyond Explanatory Proof”: Much recent work on mathematical explanation has presupposed that the phenomenon involves explanatory proofs in an essential way. I argue that this view, “proof chauvinism”, is false. I then look closely at the explanation of the solvability of polynomial equations provided by Galois theory, which has often been thought to revolve around an explanatory proof.

“Viewing-as, Dependence and Explanation in Mathematics”: Viewing one object as another is ubiquitous in modern mathematics, but its philosophical significance has yet to be explored. I argue that some mathematical explanations involve “viewing-as” in an essential way. These cases challenge the popular ontic conception of explanation, according to which explanations are always underwritten by worldly dependence relations.

References

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