

Sander Beckers

Curriculum Vitae

E-mail: srekcebrednas@gmail.com

Website: sanderbeckers.com

Employment

- 2019-2021 Humboldt Postdoctoral scholar (supervisor: Stephan Hartmann)
Munich Center for Mathematical Philosophy, LMU
- 2019 January Visiting scholar (host: Frederick Eberhardt)
Division of the Humanities and Social Sciences, Caltech
- 2018-2019 Postdoctoral scholar (supervisor: Jan Broersen)
Reins project: <https://responsibleintelligentsystems.sites.uu.nl>
Department of Philosophy and Religious Studies, Utrecht University
- 2017 Fall Visiting postdoctoral scholar (supervisor: James Conant)
Institute of Philosophy, Leipzig University
- 2016-2017 Visiting B.A.E.F. Fellow (supervisor: Joe Halpern)
Department of Computer Science, Cornell University
- 2012-2016 Ph.D. in Computer Science, October 2016
KULeuven - University of Leuven, Belgium
Dissertation: Actual Causation: Definitions and Principles
Supervisors: Hendrik Blockeel and Joost Vennekens
- 2013 Fall Visiting doctoral researcher (host: Stephan Hartmann)
Munich Center for Mathematical Philosophy
- 2010-2011 Researcher at University of Leuven, EAVISE research group
Project: S.O.S. OpenCL: Multicore Cooking
- 2008-2009 (part-time) internship as actuary
Fortis Insurance Belgium, Employee Benefits
- 2008 (part-time) internship as actuary
Aon Benfield Belgium

Education

<u>Program</u>	<u>Institution</u>	<u>Year</u>	<u>Result</u>
Master in Mathematics <i>Dissertation: Deductive Reasoning in Guarded FO(ID)</i> <i>Supervisor: Marc Denecker</i>	University of Leuven	2011	distinction
Bridge program Mathematics	University of Leuven	2008	
Master in Philosophy <i>Dissertation: Wittgenstein en het Ethische</i> <i>Supervisor: Arnold Burms</i> <i>2005: one semester abroad at Stellenbosch University, South Africa</i>	University of Leuven	2006	distinction
Bachelor in Philosophy	University of Antwerp	2004	distinction

Grants and Fellowships

2019-2021	Humboldt Research Fellowship for Postdoctoral Researchers
2016-2017	Research Fellowship, Belgian American Educational Foundation
2012-2015	Ph.D. Grant for Fundamental Research, Flanders Innovation & Entrepreneurship

Research

Journal Publications

Beckers, S. (2018). AAAI: an Argument Against Artificial Intelligence, In Vincent C. Müller (ed.), *Philosophy and Theory of Artificial Intelligence 2017*, (SAPER; Berlin: Springer), 235-247.

Beckers, S. and Vennekens, J. (2018). A Principled Approach to Defining Actual Causation, *Synthese*, 195(2), 835-862.

Beckers, S. and Vennekens, J. (2017). The Transitivity and Asymmetry of Actual Causation, *Ergo*, 4(1), 1-27.

Beckers, S. and Vennekens, J. (2016). A General Framework for Defining and Extending Actual Causation using CP-logic, *International Journal for Approximate Reasoning*, 77: 105-126.

Conference Publications

Beckers, S., Eberhardt, F., and Halpern, J.Y. (2019). Approximate Causal Abstraction, In *Proceedings of the 35th Conference on Uncertainty in Artificial Intelligence*, forthcoming.

Beckers, S. and Halpern, J.Y. (2019). Abstracting Causal Models, In *Proceedings of the 33rd AAAI Conference on Artificial Intelligence*, forthcoming.

Beckers, S. (2017). AAAI: an Argument Against Artificial Intelligence, In *Proceedings of the 3rd International Workshop on AI, Ethics and Society*.

Beckers, S. and Vennekens, J. (2015). Towards a General Definition of Actual Causation Using CP-logic. In *Proceedings of the 2nd International Workshop on Probabilistic Logic Programming co-located with ICLP, volume 1413 of CEUR Workshop Proceedings*, 19–38.

Beckers, S. and Vennekens, J. (2015). Combining Probabilistic, Normative, and Causal Reasoning in CP-logic, In *Proceedings of the 12th International Symposium on Logical Formalizations of Commonsense Reasoning*, 32-38.

Beckers, S. and Vennekens, J. (2012). Counterfactual Dependency and Actual Causation in CP-logic and Structural Models: a Comparison. In *Proceedings of the Sixth STAIRS, volume 241 of Frontiers in Artificial Intelligence and Applications*, 35–46.

Beckers, S., De Samblanx, G., De Smedt, F., Goedemé, T., Struyf, L., and Vennekens, J. (2012). Parallel hybrid SAT solving using OpenCL. In *Proceedings of Benelux Conference on Artificial Intelligence*, 11-18.

Beckers, S., De Samblanx, G., De Smedt, F., Goedemé, T., Struyf, L., and Vennekens, J. (2011). Parallel SAT-solving with OpenCL. In *Proceedings of the IADIS International Conference on Applied Computing*, 435-441.

Refereeing

AAAI Conference on Artificial Intelligence (Program Committee)

Erkenntnis

Ethics and Information Technology

European Journal for Philosophy of Science

Information

International Joint Conference on Artificial Intelligence

Journal of Philosophical Logic

Journal of Social Philosophy

Philosophy and Theory of Artificial Intelligence

Synthese

The Philosophical Review

Selected Talks (full list available on website)

2019 'Causation and the Principle of Alternative Possibilities', Invited speaker, Free Will and Causality conference, Dusseldorf, Germany

2019 'Formalizing Mental Causation', EPSA conference, Geneva, Switzerland

2019 'Approximate Causal Abstraction', UAI conference, Tel Aviv, Israel

2019 'Formalizing the Causal Conditions for Moral Responsibility', REINS closing conference, Utrecht University, the Netherlands

2019 'Abstracting Causal Models', AAAI Conference on Artificial Intelligence, Honolulu, United States

2018 'Applying Causal Modeling to Philosophical Issues', Invited talk, Logic and Metaphysics Workshop, CUNY

2018 'Causation and the Principle of Alternative Possibilities', Causes, Norms, and Decisions Workshop, Hannover, Germany

2017 'AAAI: an Argument Against Artificial Intelligence', Philosophy and Theory of Artificial Intelligence, Leeds, UK

2017 'Formal Ethics', Invited talk, Center for Human-Compatible AI, UC Berkeley

2015 'A Principled Approach to Defining Actual Causation', Invited talk, Tilburg Center for Logic, Ethics, and Philosophy of Science, the Netherlands

2015 'Combining Probabilistic, Causal, and Normative Reasoning using CP-logic', AAAI Spring Symposium: Commonsense Reasoning, Stanford University

2013 'Actual Causation using CP-logic', colloquium, Munich Center for Mathematical Philosophy

2013 'Dual Inheritance Theory as an Integration of Biology and the Humanities', Reduction and Emergence in the Sciences conference, Munich Center for Mathematical Philosophy

2011 'Parallel SAT-solving with OpenCL', IADIS, Rio de Janeiro, Brazil

Teaching

University of Leuven

Undergraduate program Civil Engineering, exercise classes:

- 2014-2015 Introduction to Programming: Python
- 2012-2013 Introduction to Programming: Java

Undergraduate program Industrial Engineering, exercise classes:

- 2015: Introduction to the IDP knowledge base system
- 2014-2015 Introduction to Programming: Python
- 2010-2013 Introduction to Programming: C

Utrecht University

Undergraduate program Philosophy, tutorials:

- 2018-2019: Logic for philosophers
- 2018-2019: Epistemology and Philosophy of Science
- 2019: Philosophical Reflection on Scientific Models of Man

Undergraduate program in Artificial Intelligence, lectures:

- 2018: Introduction to Statistics

Master in Artificial Intelligence:

- 2018: Philosophy of AI, tutorials
- 2018-2019: Philosophy of AI, two guest lectures