

## Sander Beekers

### *Curriculum Vitae*

E-mail: srekcebrednas@gmail.com

Website: sanderbeekers.com

## Employment

starting September	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-present	Postdoctoral scholar (supervisor: Jan Broersen) Reins project: <a href="https://responsibleintelligentsystems.sites.uu.nl">https://responsibleintelligentsystems.sites.uu.nl</a> 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 <i>Dissertation: Actual Causation: Definitions and Principles</i> <i>Supervisors: Hendrik Blockeel and Joost Vennekens</i>
2013 Fall	Visiting doctoral researcher (host: Stephan Hartmann) Munich Center for Mathematical Philosophy
2010-2011	Researcher at University of Leuven, EAVISE research group <i>Project: S.O.S. OpenCL: Multicore Cooking</i>
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. 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.

### Talks

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 'Formalizing Mental Causation', OZSW conference, Enschede, the Netherlands

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 'A Formal Approach to Frankfurt-style Cases', OZSW conference, Doorn, the Netherlands

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

2017 'AAAI: an Argument Against Artificial Intelligence', European Conference for Analytic Philosophy, Munich, Germany

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

2017 'AAAI: an Argument Against Artificial Intelligence', AAAI Workshop on AI, Ethics and Society, San Francisco

2016 'The Transitivity and Asymmetry of Actual Causation', Philosophy of Science in a Forest, Doorn, the Netherlands

2015 'A Principled Approach to Defining Actual Causation', Conference of Logic, Methodology and Philosophy of Science, Helsinki, Finland

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

2015 'The Problem of Actual Causation', Epistemology Reading Group, Department of Linguistics and Philosophy, MIT

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

2014 'Actual Causation using CP-logic', Declarative Languages and AI seminar, University of Leuven, Belgium

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

2013 'A Pragmatic Approach to Causality', OZSW conference, University of Rotterdam

2013 'Actual Causation: the CP-logic Approach', Invited talk, INRIA, Grenoble, France

2013 'Actual Causation in Cases of Preemption: the CP-logic Approach', Graduate Conference in Theoretical Philosophy, University of Groningen, the Netherlands

2013 'Actual Causation in Cases of Preemption: the CP-logic Approach', Center for Logic and Analytic Philosophy colloquium, University of Leuven, Belgium

2012 'Actual Causation in Cases of Preemption: the CP-logic Approach', Great Plains Graduate Conference in Philosophy, Kansas University

2012 'Counterfactual Dependency and Actual Causation in CP-logic and Structural Models: a Comparison', STAIRS conference, Montpellier, France

2012 'Parallel hybrid SAT solving using OpenCL', BNAIC, Maastricht University, the Netherlands

2012 'Parallel hybrid SAT solving using OpenCL', Declarative Languages and AI seminar, University of Leuven, Belgium

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

## **Refereeing**

AAAI Conference on Artificial Intelligence

Ethics and Information Technology

European Journal for Philosophy of Science

Information

International Joint Conference on Artificial Intelligence

Philosophy and Theory of Artificial Intelligence

The Philosophical Review