

Zhiguang Zhao

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Education 01/2014-(02/2018, expected)
PhD in Logic
Applied Logic Group
Faculty of Technology, Policy and Management
Delft University of Technology
Supervisor: Dr Alessandra Palmigiano

09/2011-08/2013
MSc in Logic
Logic and Mathematics Track
Institute for Logic, Language and Computation
University of Amsterdam

09/2007-07/2011
BA in Philosophy (Major)
Logic and Philosophy of Science Track
Department of Philosophy
Peking University

09/2008-07/2011
BSc in Mathematics (Minor)
Pure and Applied Mathematics Track
School of Mathematical Sciences
Peking University

Research Interest modal logic, intuitionistic logic, algebraic logic
correspondence theory, canonical extension, duality theory
algebraic proof theory, structural proof theory, display calculus, labelled sequent calculus
model theoretic and algebraic methods in social choice theory
possibility semantics

Talks

1. **Algorithmic correspondence and canonicity for possibility semantics**, Logic Seminar, Peking University, China, 07/11/2017
2. **Algorithmic correspondence and canonicity for possibility semantics**, ALCOP 2017, Glasgow, UK, 11/04/2017
3. **Algorithmic correspondence and canonicity for possibility semantics**, Logic Workshop, University of Johannesburg, South Africa, 25/01/2017
4. **Canonicity and Relativized Canonicity via Pseudo Correspondence**, WOLC 2016, Guangzhou, China, 09/12/2016

5. **Algorithmic correspondence and canonicity for possibility semantics**, WOLC 2016, Guangzhou, China, 08/12/2016
6. **Constructive Canonicity for Lattice-based Fixed Point Logics**, WOLC 2016, Guangzhou, China, 07/12/2016
7. **Sahlqvist via Translation**, WOLC 2016, Guangzhou, China, 05/12/2016
8. **Constructive Canonicity for Lattice-based Fixed Point Logics**, SYSMICS 2016, Barcelona, Spain, 06/09/2016
9. **Constructive Canonicity for Lattice-based Fixed Point Logics**, Advances in Modal Logic 2016, Budapest, Hungary, 02/09/2016
10. **Generalised Ultraproduct and Kirman-Sondermann Correspondence for Vote Abstention**, PhD Colloquium, Delft University of Technology, the Netherlands, 21/04/2016
11. **Sahlqvist via Translation**, ALCOP 2016, Vienna, Austria, 08/04/2016
12. **Generalised Ultraproduct and Kirman-Sondermann Correspondence for Vote Abstention**, Logic Workshop, University of Johannesburg, South Africa, 08/01/2016
13. **An Abstract Algebraic Logic View of Judgment Aggregation**, LORI 2015, Taipei, Taiwan, China, 31/10/2015
14. **Generalised Ultraproduct and Kirman-Sondermann Correspondence for Vote Abstention**, LORI 2015, Taipei, Taiwan, China, 30/10/2015
15. **A Comparison Between Two Kinds of Canonicity Proofs**, Workshop on Correspondence and Canonicity in Non-Classical Logic, ILLC, Universiteit van Amsterdam, the Netherlands, 08/09/2015
16. **Generalised Ultraproduct and Kirman-Sondermann Correspondence for Vote Abstention**, Trends in Logic XV, Delft, the Netherlands, 03/07/2015
17. **An Abstract Algebraic Logic View of Judgment Aggregation**, TACL 2015, Ischia, Italy, 26/06/2015
18. **Jónsson-style Canonicity for ALBA-Inequalities**, TACL 2015, Ischia, Italy, 26/06/2015
19. **Algorithmic Correspondence and Proof Theory for Strict Implication**, TACL 2015, Ischia, Italy, 22/06/2015
20. **An Abstract Algebraic Logic View of Judgment Aggregation**, PhDs in Logic VII, Vienna, Austria, 14/05/2015
21. **Algebraic Method in Social Choice**, Logic and Algebra Day, University of Johannesburg, South Africa, 09/01/2015
22. **An Algebraic View of Judgement Aggregation**, Lorentz Workshop “Logics for Social Behavior”, Leiden, the Netherlands, 10/11/2014
23. **A Brief Introduction to Social Choice Theory**, PhD Colloquium, Delft University of Technology, the Netherlands, 11/09/2014
24. **Sahlqvist Theory for Regular Modal Logics**, Advances in Modal Logic 2014, Groningen, the Netherlands, 05/08/2014
25. **Several Approaches to Belief Revision**, Applied Logic Seminar, Delft University of Technology, the Netherlands, 28/04/2014
26. **Two Methods of Canonicity Proofs**, Logic and Algebra Day, University of Johannesburg, South Africa, 24/01/2014
27. **Algebraic Canonicity in Non-classical Logics**, Logic Seminar, CLLC, Peking University, China, 17/09/2013

28. **The Universal Model for the Positive Fragment of Intuitionistic Logic**, Seminar on Provability, Interpretability, Intuitionism and Arithmetic, ILLC, Universiteit van Amsterdam, the Netherlands, 21/11/2012
29. **A Combined Logic of Preference and Belief**, Mini-workshop on Modal Logic, Language and Logical Dynamics, 22nd meeting of Beijing Logic Forum For Young Scholars, China, 12/06/2011

Awards and Honors

1. EMEA scholarship, Erasmus Mundus Program, European Commission, 09/2011-06/2013
2. National Southwest Associated University Scholarship, Peking University, 2010
3. First Prize in Beijing Region in the National Mathematical Modeling Contest, Beijing, 09/2010
4. First Prize in the Jiang Zehan Mathematical Modeling Contest, Peking University, 05/2010
5. Founder Scholarship, Peking University, 2009
6. Dean's Award for Study Excellence, Peking University, 2009
7. Beijing Innovation Program Research Fellowship for Undergraduate Students, title: **The Representations of Uncertainty**, Peking University, 07/2009-09/2010
8. Leo Koguan Scholarship, Peking University, 2008

Scientific Visits

1. Department of Mathematics, University of Johannesburg, South Africa, 02/01/2017-31/01/2017
2. Theory and Logic Group, Institute of Computer Languages, Technische Universität Wien, 11/04/2016-15/04/2016
3. Department of Mathematics, University of Johannesburg, South Africa, 05/01/2016-29/01/2016
4. Department of Mathematics, University of Johannesburg, South Africa, 31/12/2014-31/01/2015
5. Department of Mathematics, University of Johannesburg, South Africa, 21/01/2014-10/02/2014

Journal Papers

1. **Unified Correspondence and Proof Theory for Strict Implication**, with Minghui Ma, *Journal of Logic and Computation*, 27 (3): 921-960 (2017)
2. **Sahlqvist Theory for Impossible Worlds**, with Alessandra Palmigiano, Sumit Sourabh, *Journal of Logic and Computation*, 27 (3): 775-816 (2017)
3. **Jónsson-style Canonicity for ALBA Inequalities**, with Alessandra Palmigiano, Sumit Sourabh, *Journal of Logic and Computation*, 27 (3): 817-865 (2017)
4. **Unified Correspondence as a Proof-theoretic Tool**, with Giuseppe Greco, Minghui Ma, Alessandra Palmigiano and Apostolos Tzimoulis, *Journal of Logic and Computation*, doi:10.1093/logcom/exw022 (2016)

Papers in Proceedings

1. **Algorithmic Sahlqvist Preservation for Modal Compact Hausdorff Spaces**, in Logic, Language, Information, and Computation - 24th International Workshop, WoLLIC 2017, LNCS 10388, pp 387-400 (2017)
2. **Constructive Canonicity for Lattice-based Fixed Point Logics**, with Willem Conradie, Andrew Craig and Alessandra Palmigiano, in Logic, Language, Information, and Computation - 24th International Workshop, WoLLIC 2017, LNCS 10388, pp 92-109 (2017)
3. **Universal Models for the Positive Fragment of Intuitionistic Logic**, with Nick Bezhanishvili, Dick de Jongh, Apostolos Tzimoulis, in Logic, Language, and Computation: 11th International Tbilisi Symposium on Logic, Language, and Computation, TbiLLC 2015 (2017)
4. **Generalised Ultraproduct and Kirman-Sondermann Correspondence for Vote Abstention**, with Geghard Bedrosian and Alessandra Palmigiano, in Logic, Rationality and Interaction: 5th International Workshop on Logic, Rationality and Interaction - LORI 2015, LNCS 9394, pp. 27-39 (2015)
5. **An Abstract Algebraic Logic View on Judgment Aggregation**, with María Esteban and Alessandra Palmigiano, in Logic, Rationality and Interaction: 5th International Workshop on Logic, Rationality and Interaction - LORI 2015, LNCS 9394, pp. 77-89 (2015)
6. **Positive Formulas in Intuitionistic and Minimal Logic**, with Dick de Jongh, in Logic, Language, and Computation: 10th International Tbilisi Symposium on Logic, Language, and Computation, TbiLLC 2013, LNCS 8984, pp 175-189 (2015)

Papers Submitted

1. **An Application of ALBA: Relativized Canonicity via Pseudo-Correspondence**, with Willem Conradie, Alessandra Palmigiano, Sumit Sourabh
2. **Sahlqvist via Translation**, with Willem Conradie and Alessandra Palmigiano

Papers in Preparation

1. **Algorithmic Correspondence and Canonicity for Possibility Semantics**
2. **A Correspondence Theorem for Sabotage Modal Logic**

Theses

1. PhD Thesis: **Unified Correspondence and Canonicity**, supervised by Dr Alessandra Palmigiano, Delft University of Technology, will defend in 02/2018
2. MSc Thesis: **Algebraic Canonicity of Non-Classical Logics**, supervised by Dr Alessandra Palmigiano, University of Amsterdam, defended on 29/08/2013, score: 9/10
3. BA Thesis: **Combining Preference and Belief: From Statics to Dynamics**, supervised by Prof. Dr Feng Ye and Prof. Dr Fenrong Liu, Peking University, defended on 31/05/2011, score: 95/100

Teaching

1. Spring 2017, **Argumentation and Philosophy of Science**, TU Delft
2. Winter 2015, **Integration Economics, Law, Philosophy and Technology**, TU Delft
3. Winter 2014, **Ethics and Engineering for Aerospace Engineering**, TU Delft

Academic Service

- Local Organizer for Trends in Logic XV: Logics for Social Behavior, Delft, the Netherlands, 2015
- Co-organizer of Applied Logic Seminar at TU Delft, 2016-
- Reviewing Service: *TARK 2011* (2), *ICALP 2014* (1), *Journal of Logic and Computation* (3), *Journal of Applied Logic* (1), *Studia Logica* (2), *Outstanding Contributions to Logic devoted to Larisa Maksimova* (1), *CNCL 2016* (1), *TbiLLC 2017* (2), *SOQE 2017* (2)

Summer Schools Attended

1. 15/06/2015-19/06/2015, **Topology, Algebra, and Categories in Logic**, University of Salerno, Salerno, Italy
2. 11/08/2014-22/08/2014, **26th European Summer School in Logic, Language and Information**, University of Tübingen, Tübingen, Germany
3. 03/07/2014-08/07/2014, **3rd East-Asian School on Logic, Language and Computation**, Tsinghua University, Beijing, China