

CONTACT

Department of Philosophy
University of Bayreuth
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RESEARCH INTERESTS

Areas of specialization: logics for social networks, modal logics, social influence phenomena, social epistemology, judgment aggregation theory, social network analysis.

Areas of competence: formal epistemology, social choice, formal learning theory, social psychology graph theory, self-reference phenomena, limitative results in logic.

ACADEMIC EMPLOYMENT

- 01/2017 – date **Postdoctoral Researcher**
Social Epistemology & Epistemic Logic
[Department of Philosophy](#)
University of Bayreuth
DFG/GACR project “From Shared Evidence to Group Attitudes”
- 03/2018 - 06/2019 *Maternity Leave*
- 01/2016 - 12/2016 **Postdoctoral Researcher**
Opinion Formation in Autonomous Systems
[Department of Computer Science](#)
University of Liverpool
ESPRC project “Foundations of Opinion Formation in Autonomous Systems”.
- 05/2012 – 12/2015 **PhD Candidate**
[Institute for Logic, Language and Computation \(ILLC\)](#)
Faculty of Science
University of Amsterdam
ERC project “The Logical Structure of Correlated Information Change”.
- 09/2010 – 08/2011 **Teaching Assistant in Logic**
[Department of Philosophy](#)
University of Geneva
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EDUCATION

- 2012 – 2016 **PhD in Logic**
[Institute for Logic, Language and Computation \(ILLC\)](#)
University of Amsterdam
Thesis title: *Dynamic Logics of Networks. Information Flow and the Spread of Opinion.*
Advisors: [Johan van Benthem](#), [Sonja Smets](#)
Committee: [Jan van Eijck](#), [Davide Grossi](#), [Vincent Hendricks](#), [Fenrong Liu](#), [Olivier Roy](#), and [Frank Veltman](#)
- 2009 – 2012 **MA in Philosophy**
[Faculty of Humanities](#)
University of Geneva
Thesis title: *The Lottery Paradox* (in French)
Supervisor: [Pascal Engel](#)
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PUBLICATIONS

In preparation:

1. Truth-tracking Crowds (with Nina Gierasimczuk).
2. Epistemic Gain from Delegation *vs* Democratization (with Davide Grossi and Dominik Klein).
3. Foundations of Liquid Democracy (with Davide Grossi).
4. Graph Colorability and Diffusion Phenomena: a Logical Perspective (with Thomas Ågotnes).
5. Boolean Networks and Opinions Diffusion (with Umberto Grandi).

Submitted:

6. Priority Merge and Intersection Modalities (with Norbert Gratzl and Olivier Roy), journal version, submitted.

Accepted:

7. Priority Merge and Intersection Modalities (with Norbert Gratzl and Olivier Roy), abstract, accepted for presentation at [CLMPST – 16th International Congress on Logic, Methodology and Philosophy of Science and Technology](#), Prague, 5-10 August 2019.

Refereed academic journals:

8. [Social Network Diffusion with Recalcitrant Agents](#) (with Pavel Naumov), *Journal of Logic and Computation (JLC)*, Volume 29, Issue 1, pp. 53–70, January 2019.
9. [Dynamic Epistemic Logic of Diffusion and Prediction in Threshold Models](#) (with Alexandru Baltag, Rasmus K. Rendsvig and Sonja Smets), extended version, *Studia Logica*, (online first) July 6 2018.
10. [Reflecting on Social Influence in Networks](#) (with Jens Ulrik Hansen and Carlo Proietti), in E. Lorini, L. Perrussel, and R. Mühlenbernd (Eds.), Special Issue: Information Dynamics in Artificial Societies, *Journal of Logic, Language and Information (JOLLI)*, Volume 25: 3, pp.299–333, 2016.
11. [A Logic for Diffusion in Social Networks](#) (with Jens Ulrik Hansen), *Journal of Applied Logic (JAL)*, Volume 13, Issue 1, pp. 48–77, March 2015.

Refereed conference proceedings:

12. [Stability in Binary Opinion Diffusion](#) (with Davide Grossi), in A. Baltag, J. Seligman, and T. Yamada (Eds.): [Proceedings of LORI VI – 6th International Conference on Logic, Rationality and Interaction](#), Springer, Heidelberg, pp. 166–180, 2017.
13. [Binary Aggregation with Delegable proxy: An Analysis of Liquid Democracy](#) (with Davide Grossi), [Proceedings of TARK 2017 – 16th Conference on Theoretical Aspects of Rationality and Knowledge](#).
14. [Dynamic Epistemic Logic of Diffusion and Prediction in Threshold Models](#) (with Alexandru Baltag, Rasmus K. Rendsvig and Sonja Smets), extended abstract, [Proceedings of the Twelfth Conference on Logic and the Foundations of Game and Decision Theory \(LOFT 16\)](#), 2016.
15. [Logics for Threshold Models and their Epistemic Extension](#) (with Rasmus K. Rendsvig), in [Proceedings of Epistemic Logic for Individual, Social, and Interactive Epistemology \(ELISIEM\)](#), Tübingen, Germany, August 11–15 2014.
16. [A Two-tiered Formalization of Social Influence](#) (with Jens Ulrik Hansen), in D. Grossi, O. Roy, and H. Huang (Eds.): [Proceedings of Logic Rationality and Interaction, 4th International Workshop, LORI 2013](#), Hangzhou, China, October 9–12 2013, LNCS 8196, 68–81, Springer, Heidelberg, 2013.
17. [Reflecting on Social Influence in Networks](#) (with Jens Ulrik Hansen and Carlo Proietti), in [Proceedings of Information Dynamics in Artificial Societies Workshop \(IDAS\)](#), Tübingen, Germany, August 18–22 2014.
18. [A Logic for Social Influence through Communication](#), in E. Lorini (Ed.): [Proceedings of Eleventh European Workshop on Multi-Agent Systems \(EUMAS 2013\)](#), CEUR Vol–1113, 31–39, 2013.

Invited book chapter:

19. [Logical Models of Informational Cascades](#) (with Alexandru Baltag, Jens Ulrik Hansen, and Sonja Smets), in J. van Benthem and F. Liu (Eds.): *Logic across the University: Foundations and Applications*, *Studies in Logic*, Volume 47, 405–432, College Publications, London, 2013.

Edited volumes:

20. *Logic and Interactive Rationality: Yearbook 2012, Volume I*, (with P. Galeazzi, N. Gierasimczuk, A. Marcoci, and S. Smets), Institute for Logic Language and Computation, University of Amsterdam 2014.

21. *Logic and Interactive Rationality: Yearbook 2012, Volume II* (with P. Galeazzi, N. Gierasimczuk, A. Marcoci, and S. Smets), Institute for Logic Language and Computation, University of Amsterdam 2014.

Dissertations:

22. *Dynamic Logics of Networks – Information Flow and the Spread of Opinion*, PhD thesis, University of Amsterdam, ILLC Dissertation Series DS-2016-02, 2016.
23. *The Lottery Paradox* (in French), Master thesis supervised by Pascal Engel, available at the Philosophy Department Library of the University of Geneva, 2012.

Reports:

24. Report on *TARK 2017 – 16th Conference on Theoretical Aspects of Rationality and Knowledge* (with Louwe Kuiper), *The Reasoner*, Volume 11:9, pp. 65–66, 2017.

TEACHING

BA courses:

Collective Rationality (with Soroush R. Rad), BA Philosophy & Economics (module “Advanced Decision Theory”), 6 ECTS, University of Bayreuth, Spring 2018. (proposal, organization, design and preparation of the course material).

Natural Deduction for First-Order Logic, special lecture within the course Introduction to Logic, BA Philosophy & Economics, University of Bayreuth, Winter 2017.

Opinion Formation in Crowds, BA Philosophy & Economics, University of Bayreuth, Spring 2017, 6 ECTS (design and teaching).

Introduction to Logic (with Ghislain Guigon), BA Philosophy, University of Geneva, Winter 2010, 6 ECTS, (Weekly exercise sessions and grading).

MSc courses:

Logic, Knowledge, and Science (with Sonja Smets), MSc Logic, Institute for Logic, Language and Computation, University of Amsterdam, Spring 2015, 6 ECTS (teaching assistance).

Dynamic Epistemic Logic (with Alexandru Baltag), MSc Logic, Institute for Logic, Language and Computation, University of Amsterdam, Winter 2014, 6 ECTS (teaching assistance).

Topics in Dynamic Epistemic Logic (with Alexandru Baltag), MSc Logic, Institute for Logic, Language and Computation, University of Amsterdam Winter 2013, 6 ECTS (teaching assistance).

Formal Learning Theory (with Nina Gierasimczuk and Dick de Jongh), MSc Logic, Institute for Logic, Language and Computation, University of Amsterdam Spring 2013, 6 ECTS (teaching assistance).

Logic, Knowledge, and Science, MSc Logic (with Sonja Smets), Institute for Logic, Language and Computation, University of Amsterdam, Winter 2012, 6 ECTS (teaching assistance).

50 Years of Epistemic Logic, MSc Logic Summer Project, Institute for Logic, Language and Computation, University of Amsterdam, Summer 2012, 6 ECTS (proposal and organization of the project).

PhD courses/summer schools:

Social Networks for Logicians (with Pavel Naumov), *30th European Summer School in Logic, Language and Information (ESSLLI)*, Logic & Computation track, Sofia, 6-17 August 2018 (proposal, design and preparation of the course material).

Other courses:

Language & Communication (in French), *HEIG – Haute École d’Informatique de Gestion de Genève*, University of Applied Science, Geneva, 2005-2006.

Substitute teaching, middle and high schools levels, *Public Instruction Department*, Geneva, 2004-2005.

TALKS

Forthcoming:

1. Foundations of Social Influence on Networks, Logic and Interactive Rationality (LIRa) Seminar, Amsterdam, 26 September 2019 (invited).
2. Priority Merge and Intersection Modalities, CLMPST – 16th International Congress on Logic, Methodology and Philosophy of Science and Technology, 5-10 August 2019 (contributed).
3. Foundations of AI: The Logic of Social Phenomena, Conference on Deliberation, Belief Aggregation, and Epistemic Democracy (DBAED) II, Paris 10-13 June 2019 (invited).

Invited talks at international conferences and workshops:

4. Logical Foundations of Social Influence & Networks, Social Models of Meaning Acquisition (SOMMA) Workshop, Warsaw, 23-24 May 2019.
5. Stabilization in Opinion Diffusion, Conference on Games, Networks and Social Epistemology, CUNY, New York, 20-21 April 2017.
6. Stability in Opinion Diffusion, Workshop on Varieties of Pooling and Belief Merging, Bayreuth, 30 March 2017.
7. From Individual Opinions to Group Opinions (with Olivier Roy), SEGA workshop on group attitudes, Bayreuth, 19-20 April 2018 .
8. From Proxy Voting to DeGroot Models (and Back), Dutch Social Choice Colloquium, Amsterdam, 16 December 2016.
9. Proxy voting as Opinion Aggregation and Diffusion, Logic of Correlated Information Change Workshop 2016, Amsterdam, 17-19 November 2016.
10. From DeGroot to Proxy Voting, SEGA Project Kickoff Workshop, Prague, 19 September 2016.
11. From DeGroot Processes to Liquid Democracy, Cadillac workshop, Copenhagen, 23–25 May 2016.
12. From DeGroot Processes to Liquid Democracy (with Davide Grossi), Workshop Logical Dynamics of Social Influence and Information Change, Amsterdam, 22 March 2016.
13. Reflecting on Social Influence and Pluralistic Ignorance, Contributed Symposium on Social Mistakes 15th Congress of Logic, Methodology and Philosophy of Science (CLMPS), Helsinki, 6 August 2015.
14. Comment on Branden Fitelson’s talk: “Epistemic Utility Theory, Static and Dynamic Constraints on Rational Belief”, Affiliated Meeting the Logical Structure of Correlated Information Change (LogiCIC), 15th Congress of Logic, Methodology and Philosophy of Science (CLMPS), Helsinki, August 5 2015.
15. Beyond Collective “Flip-Flops” in Networks, Workshop on Correlated Information Change, Amsterdam, 25 November 2014.
16. Dynamic Epistemic Logic for Threshold Models Workshop The Logical Dynamics of Information, Agency and Interaction, Amsterdam, 3 October 2014.
17. A minimal dynamic logic for threshold influence, Modality & Modalities (M&M) 2014, Lund, 22–24 May 2014.
18. The Dynamics of Pluralistic Ignorance, Social Dynamics of Information Change, LogiCIC Workshop 2013, Amsterdam, 4 December 2013.
19. Social Networks and Belief Merge Communication Protocols Worskhop Tsinghua meets ILLC, Beijing, 18 October 2013.
20. Uncomputability and Logic: Gödel’s Incompleteness theorems, Computability and Philosophy, Spring Meeting of the Swiss Graduate Society and Philosophy of Science (SGSLPS), Bern, 5 April 2012.

Invited talks at research seminars:

21. Logical Foundations of AI: Social Influence & Networks, BAIALab AI seminar, Bergen, Department of Information Science, 18 March 2019.
22. From Proxy Voting to DeGroot Diffusion Models, Research Forum, Department of Philosophy, Bayreuth, 31 January 2017.
23. Opinion Diffusion in Networks and Liquid Democracy, Robotics and Autonomous Systems Group Meeting, Department of Computer Science, Liverpool, 6 June 2016.
24. Dynamic Epistemic Logic for Threshold Influence, First Logic and Language (LoLa) Day @ ILLC, Amsterdam, 13 June 2014.
25. Dynamic (Epistemic) Logic for Threshold Models, LIRa Seminar, Amsterdam, 8 May 2014.
26. Social Influence without Transparency, Logic Tea Seminar, Amsterdam, 22 October 2013.

Contributed talks:

27. Stability in Binary Opinion Diffusion (with Davide Grossi), [LORI VI – 6th International Conference on Logic, Rationality, and Interaction](#), Sapporo, 11-14 September 2017.
 28. Binary Aggregation with Delegable proxy: An Analysis of Liquid Democracy, [TARK 2017 – 16th Conference on Theoretical Aspects of Rationality and Knowledge](#), Liverpool, 25 July 2017.
 29. Dynamic Epistemic Logic of Diffusion and Prediction in Threshold Models, [Twelfth Conference on Logic and the Foundations of Game and Decision Theory \(LOFT 2016\)](#), Maastricht, 21 July 2016.
 30. Reflecting on Social Influence in Networks, [Information Dynamics in Artificial Societies \(IDAS\)](#), Tübingen, 20 August 2014.
 31. Dynamic Logics for Threshold Models and their Epistemic Extensions, [Epistemic Logic for Individual, Social and Interactive Epistemology \(ELISIEM\)](#), Tübingen, 12 August 2014.
 32. A Logic for Social Influence through Communication, [Logical Aspects of Multiagent Systems, 11th European Workshop on Multi-Agent Systems \(EUMAS\)](#), Toulouse, 13 December 2013.
 33. A Two-tiered Formalization of Social Influence, [Fourth International Workshop on Logic, Rationality and Interaction \(LORI-IV\)](#), Hangzhou, 12 October 2013.
 34. Social Influence through Communication [Decisions Games & Logic'13 \(DGL\)](#), Stockholm, 18 June 2013.
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ACADEMIC ACTIVITIES

Program committees:

- PC member of the [2nd Dynamic Logic: New Trends and Applications \(DaLi\) Conference](#), Porto, October 11 2019.
- PC member of the [Thirteenth Conference on Logic and the Foundations of Game and Decision Theory \(LOFT13\)](#), Milan, 16–18 July 2018.
- PC member of the [27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence \(IJCAI-ECAI-2018\)](#), Stockholm, 13–19 July 2018.
- PC member of the [6th International Conference on Logic, Rationality and Interaction \(LORI-VI\)](#), Sapporo, 11–14 September 2017.
- PC co-chair of the Logic and Computation track, [ESSLLI 2014 Student Session](#), Tübingen, 11–22 August 2014.

Other committees:

- Member of the Editorial Committee of the analytical philosophy journal [Dialectica](#), since 2016.
- Chair of the [PhD Council of the ILLC](#), UvA (2012–2015).

Events organization:

- [Closing SEGA Project Workshop](#), Bayreuth, 18-20 July 2019.
- [Workshop on Group Attitudes](#), Bayreuth, 19-20 April 2018.
- [Varieties of Pooling and Belief Merging Workshop](#), Bayreuth, 30-31 March 2017.
- [Logical Dynamics of Social Influence and Information Change](#), Amsterdam, 22 March 2016.
- [11th Tbilisi Symposium on Logic, Language & Computation \(TbiLLC 2015\)](#), Tbilisi, 21-26 September 2015.
- [Correlated Information Change LogiCIC Workshop](#), Amsterdam, 24-26 November 2014.
- [LogiCIC Mini-Workshop on The Dynamics of Information States](#), Amsterdam, 19 June 2014.
- [LogiCIC Mini-Workshop on Formal Epistemology](#), Amsterdam, 10 June 2014.
- [ILLC tutorial on Coherence](#) by Branden Fitelson, Amsterdam, 3–30 June 2014.
- [Social Dynamics of Information Change](#), LogiCIC workshop 2013, Amsterdam, 2–4 December 2013.
- [Belief Change in Social Context](#), kick-off Workshop of the LogiCIC Project, Amsterdam, 14–15 December 2012.
- [Logical Structure of Correlated Information Change \(LogiCIC\) Seminar](#) (monthly, 2012-2015).
- [Logic and Interactive Rationality \(LIRA\) Seminar](#) (weekly, 2012-2015).

Reviewing:

Artificial Intelligence Journal (AIJ).
European Political Science Review (EPSR).
Journal of Applied Logic (JAL).
Dialectica.
Philosophy Compass.
Sixteenth International Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2017).
9th Methods for Modalities Workshop (M4M9).
25th International Joint Conference on Artificial Intelligence (IJCAI-16).
Advance in Modal Logic (AiML 2016).
Workshop on Logic, Language, Information, and Computation (WoLLIC 2016).
4th International Workshop on Strategic Reasoning (SR16).
Discovery Science 2015

MEDIA

Interview on collective informational failures in the national Dutch newspaper *Trouw*, article “De Digitale Kleren van de Keizer” (“The Emperor’s Digital Clothes”), April 2nd 2016.

GRANTS

The Royal Netherlands Academy of Arts and Sciences (KNAW) China Exchange Program Travel Grant (co-applicant, ~EUR 50.000, 2014–2016).

REFERENCES

Olivier Roy University of Bayreuth Philosophy & Economics Olivier.Roy@uni-bayreuth.de	Davide Grossi University of Groningen Department of Artificial Intelligence d.grossi@rug.nl	Johan van Benthem Universities of Amsterdam, Stanford, and Tsinghua johan.vanbenthem@uva.nl
Thomas Ågotnes University of Bergen Information Science Department Thomas.Agotnes@uib.no	Jeremy Seligman University of Auckland Department of Philosophy j.seligman@auckland.ac.nz	Sonja Smets University of Amsterdam ILLC S.J.L.Smets@uva.nl

RESEARCH VISITS

Department of Information Science and Media Studies, University of Bergen, Norway, March 2019.
The Graduate Center, City University of New York (CUNY), USA, April 2017.
Department of Philosophy, Tsinghua University, Beijing, China, October 2013.
Department of Philosophy, Lund University, Sweden, April 2013.

AFFILIATIONS

Knowledge Representation Group, Dep. of Computer Science, University of Liverpool
Robotics and Autonomous Systems Group, Dep. of Computer Science, University of Liverpool
Swiss Society For Logic and Philosophy of Science (SSLPS)
Amsterdam Dynamics Group

LANGUAGES

French (native); English (fluent); German (intermediate); Dutch (basics); Italian (notions).
