

Mario Günther

RESEARCH PROFILE

AOS: Epistemology, Conditionals, Causality

AOC: Logic, Decision Theory, Ethics, Philosophies of Science, Language, AI, Cognitive Science

POSITIONS

Now **Research Fellow**

“Humanising Machine Intelligence”

ANU Grand Challenge

Australian National University

KATIE STEELE

18-19 **Postdoc in Philosophy**

“Reasoning with Conditionals” (DFG Project)

New Frameworks of Rationality

University of Regensburg

HANS ROTT

EDUCATION

2019 **PhD in Philosophy**

“Learning, Conditionals, Causation”

Munich Center for Mathematical Philosophy & Graduate School of Systemic Neurosciences, LMU Munich

HANNES LEITGEB, STEPHAN HARTMANN, STEPHAN SELLMAYER, HOLGER ANDREAS

2015 **Master in Logic and Philosophy of Science**

“Non-Monotonic Logics, Artificial Neural Networks, and Complexity Considerations in the Horn Case”

Munich Center for Mathematical Philosophy, LMU Munich

OLIVIER ROY, HANNES LEITGEB, GREGORY WHEELER

2012 **Bachelor in Philosophy and Cognitive Science**

“The Methodology of Scientific Research Programmes as Modification of Popper’s Falsificationism”

Albert Ludwig University Freiburg

MAARTEN J. F. M. HOENEN

PEER-REVIEWED PUBLICATIONS

2021 “Difference-Making Causation” (with Holger Andreas)

Journal of Philosophy (forthcoming)

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🗣 English, German, French, Ancient Greek

2021 “Epistemic Sensitivity and Evidence”
Inquiry (forthcoming)

2021 “A Ramsey Test Analysis of Causation for Causal Models” (with Holger Andreas)
British Journal for the Philosophy of Science (forthcoming)

2021 “Regularity and Inferential Theories of Causation” (with Holger Andreas)
The Stanford Encyclopedia of Philosophy (forthcoming)

2021 “Algorithmic and Human Decision Making: For a Double Standard of Transparency” (with Atoosa Kasirzadeh)
AI & Society (forthcoming)

2020 “Causation in Terms of Production” (with Holger Andreas)
Philosophical Studies 177(6): 1565-1591.

2019 “On the Ramsey Test Analysis of ‘Because’” (with Holger Andreas)
Erkenntnis 84 (6):1229-1262.

2019 “Defining Selection Functions” (with Holger Andreas)
The Logica Yearbook 2018, 1-13.

2018 “Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals”
Journal of Philosophical Logic 47 (5):851-876.

2017 “Learning Conditional and Causal Information by Jeffrey Imaging on Stalnaker Conditionals”
Organon F, 24 (4):456-486.

2017 “Disjunctive Antecedents for Causal Models”
Proceedings of the 21st Amsterdam Colloquium, 25-34.

2014 “Logical Symbolicism vs. Dynamicist Connectionism: Is there a Difference in Computational Power?”
Incipiens, 2(1):5-28.

OUTREACH

- 2020 “Large-scale facial recognition is incompatible with a free society” (with Seth Lazar and Claire Benn)
The Conversation.
- 2020 “Was wird die Künstliche Intelligenz für Versicherungsunternehmen bedeuten?” (German)
prae/faktisch.
- 2018 “What’s Hot in Mathematical Philosophy?”
The Reasoner, 12 (11): 90-91.

TEACHING POSITIONS

- 2020 “Conditionals”
Co-Lecturer with ALAN HÁJEK (English)
ANU
- 2020 “Fair Machine Learning”
Lecturer (English)
UNIVERSITY OF BAYREUTH
- 2019 “Decisions, Fairness, and Machine Learning”
Lecturer (English)
UNIVERSITY OF BAYREUTH
- 2018 “Decisions and Machines” (English)
Lecturer
UNIVERSITY OF BAYREUTH
- 2017 “Philosophy of AI” (English)
Lecturer
UNIVERSITY OF BAYREUTH
- 2017 “Bayesian Philosophy of Science” (English)
Guest Lecturer on Bayesian Networks
STEPHAN HARTMANN, LMU MUNICH
- Teaching Assistant*
- 2020 “Logic & Critical Thinking” (English)
COLIN KLEIN
- 2019 “The Moral and Political Philosophy of AI” (English)
SETH LAZAR
- 2018 “Ethics of AI” (English)
FIORELLA BATTAGLIA & ATOOSA KASIRZADEH
- 2018 “Versions of Realism” (English)
JULIAN NIDA-RÜMELIN
- 2017/18 “Logic I” (German)
HANNES LEITGEB

- 2017 “Epistemology and Ethics” (English)
JULIAN NIDA-RÜMELIN
- 2017 “Introduction to Philosophy of Science” (German)
ALEXANDER REUTLINGER
- 2016 “Introduction to Philosophy of Science” (German)
ALEXANDER REUTLINGER
- 2016 “The Foundation of the Philosophy of Morals with Kant” (German)
FIORELLA BATTAGLIA
- 2015/16 “Human Liberty vs. Freedom of Will” (German)
FIORELLA BATTAGLIA
- 2015 “Responsibility in the Sciences and Technology” (German)
FIORELLA BATTAGLIA
- 2015 “Philosophy of Mind” (English)
STEPHAN SELLMAIER
- 2014/15 “Life-form and Science” (German)
FIORELLA BATTAGLIA
- 2014/15 “Metaethics: Constructivism and Realism” (German)
FIORELLA BATTAGLIA
- 2014 “Metaethical Foundation of Moral Reasoning” (German)
FIORELLA BATTAGLIA
- 2013/14 “Robotisation of Warfare. Risk, Ethics and Politics” (German)
FIORELLA BATTAGLIA
- 2010/11 “Cognitive Science II” (German)
GERHARD STRUBE
- 2010/11 “Logic I” (German)
MARKUS JUNKER

ORGANISATION OF EVENTS

- 2021 Seminar “Humanising Machine Intelligence” (led by Seth Lazar)
AUSTRALIAN NATIONAL UNIVERSITY
Convener
- 2020 Reading Group on “Conditionals” (with Frank Jackson, Alan Hájek, and Brian Hedden)
AUSTRALIAN NATIONAL UNIVERSITY
Organizer
- 2019 Workshop “Decision Theory & the Future of Artificial Intelligence”
AUSTRALIAN NATIONAL UNIVERSITY
Co-organizer

- 2019 Workshop “Knowledge of Knowledge”
UNIVERSITY OF REGENSBURG
Co-organizer
- 2018 Seminar “The Ethics of Artificial Intelligence”
VENICE INTERNATIONAL UNIVERSITY, SAN SER-
VOLO, ITALY
Co-organizer
- 2018 Seminar “Versions of Realism”
VENICE INTERNATIONAL UNIVERSITY, SAN SER-
VOLO, ITALY
Co-organizer
- 2017 International Workshop “Democracy as a Form of
Life”
PARMENIDES FOUNDATION, GERMANY
Co-organizer
- 2017 ECAP9 Symposium on “Current Trends in Neu-
rophilosophy”
LMU MUNICH, GERMANY
Organizer at the 9th European Congress of Ana-
lytic Philosophy
- 2017 Conference “Causation, Explanation, Condition-
als”
EV. AKADEMIE, TUTZING (LAKE STARNBERG) AND
LMU MUNICH, GERMANY
Main organizer of an international conference sup-
ported by the GSN, the Bernstein Center for
Computational Neuroscience, and the MCMP
- 2017 Seminar “Epistemology and Ethics”
VENICE INTERNATIONAL UNIVERSITY, SAN SER-
VOLO, ITALY
Co-organizer
- 2015 Conference “Predictive Brain”
VENICE INTERNATIONAL UNIVERSITY, SAN SER-
VOLO, ITALY
Co-Organizer
- 2018 Payment, as well as Travel and Accommodation
Grant for lecturing my own course
UNIVERSITY OF BAYREUTH
- 2018 Travel and Accommodation Grant for the
Jerusalem-Munich Workshop
- 2017 Travel and Accommodation Grant for the 21st Am-
sterdam Colloquium
UNIVERSITY OF AMSTERDAM (ILLC)
- 2017 Payment, as well as Travel and Accommodation
Grant for lecturing my own course
UNIVERSITY OF BAYREUTH
- 2017 Travel and Accommodation Grant for a research
stay at U of T and UBC, Canada
GSN
- 2016 Travel and Accommodation Grant for IRSI 2016
VOLKSWAGEN STIFTUNG
- 2016 Travel and Accommodation Grant for the inaugu-
ral conference of the EENPS 2016
GSN
- 2015 Travel and Accommodation Grant for ESSLLI
2015
GSN
- 2015-19 Doctoral Fellowship Grant
GSN
- 2014-18 8 Travel and Accommodation Grants for various
events
VENICE INTERNATIONAL UNIVERSITY
GSN/LMU
- 2014 Top 10% of the MCMP master students (refund
of study fees).

HONORS, AWARDS, GRANTS

- 2019-22 Postdoctoral Research Fellow
ANU GRAND CHALLENGE ‘HUMANISING MA-
CHINE INTELLIGENCE’
- 2018-20 Postdoctoral Research Fellow
DEUTSCHE FORSCHUNGSGEMEINSCHAFT (DFG)
- 2018 PSA Travel and Accommodation Grant
PHILOSOPHY OF SCIENCE ASSOCIATION
- 2011-12 Grant for independent studies
UNIVERSITÉ PARIS-SORBONNE (*Paris IV*)
- 2009/10 Top 5% in the Cognitive Science II exam
ALBERT LUDWIG UNIVERSITY FREIBURG
- 2008 Top 10% in the Formal Logic I exam
ALBERT LUDWIG UNIVERSITY FREIBURG

SELECTED TALKS

- 2021 “Probability of Guilt” (invited)
Humanising Machine Intelligence Seminar
ANU
- 2020 “Moral Reasons for Decision-Making Algorithms and their Complexity” (invited)
Humanising Machine Intelligence Retreat
ANU
- 2020 “A Theory of Conditionals” (invited)
“Ifs and ands were pots and pans ...”: Qualitative and Quantitative Approaches to Reasoning and Conditionals
UNIVERSITY OF REGENSBURG, GERMANY
- 2020 “An Analysis of Actual Causation” (with Holger Andreas) (refereed)
Bayesian Epistemology: Perspectives and Challenges
MCMP
- 2020 “Bayesian’s Still Don’t Learn from Conditionals” (with Borut Trpin) (refereed)
Bayesian Epistemology: Perspectives and Challenges
MCMP
- 2020 “Algorithmic Recommendations for Judicial Sentences” (with Katie Steele) (refereed)
Ethics of Data Science Conference
UNIVERSITY OF SYDNEY, AUSTRALIA
- 2020 “Algorithmic and Human Decision Making: Three Arguments for a Double Standard of Transparency” (with Atoosa Kasirzadeh) (refereed)
Ethics of Data Science Conference
UNIVERSITY OF SYDNEY, AUSTRALIA
- 2020 “A ‘Rawlsian’ Constraint on Insurance Pricing in the Age of ML” (invited)
AI and Insurance Workshop
GRADIENT INSTITUTE, SYDNEY
- 2019 “An Analysis of Actual Causation” (refereed)
New Zealand Association of Philosophers - Annual Conference
UNIVERSITY OF AUCKLAND, NEW ZEALAND
- 2019 “On Causal Bayes Nets” (invited)
Retreat of Computational Media Lab
AUSTRALIAN NATIONAL UNIVERSITY, KIOLOA, AUSTRALIA
- 2019 “An Analysis of Actual Causation” (invited)
Thursday Seminar Series at ANU
AUSTRALIAN NATIONAL UNIVERSITY, CANBERRA, AUSTRALIA
- 2019 “Learning Subjunctive Conditional Information” (refereed)
16th CLMPST
CZECH TECHNICAL UNIVERSITY, PRAGUE, CZECH REPUBLIC
- 2019 “A Strengthened Ramsey Test for Causal Explanations” (refereed)
ExLog2019 - Explaining with Logic
UCLouvain, Louvain-la-Neuve, Belgium
- 2019 “A Strengthened Ramsey Test Semantics for Missing-Link Conditionals” (invited)
Conditional Logics and Conditional Reasoning: New Joint Perspectives
SCHLOSS DAGSTUHL, LEIBNIZ CENTER FOR INFORMATICS, GERMANY
- 2018 “A Non-Bayesian Resolution to the Judy Benjamin Problem” (invited)
UNIVERSITY OF REGENSBURG, GERMANY
- 2018 “Interventionist Mental Causation and the Methods of Cognitive Neuroscience” (refereed)
26th Biennial Meeting of the Philosophy of Science Association
SEATTLE, USA
- 2018 “Interventionist Mental Causation and the Methods of Cognitive Neuroscience” (refereed)
The 2nd Conference of the East European Network for Philosophy of Science
UNIVERSITY OF BRATISLAVA, SLOVAKIA
- 2018 “Explanatory Conditionals” (refereed)
11th MuST Conference in Philosophy of Science: Models of Explanation
UNIVERSITY OF TURIN, ITALY
- 2018 “Interventionist Mental Causation and the Methods of Cognitive Neuroscience: The Explanatory Merit of Functional Reduction” (invited)
Jerusalem-Munich Workshop
EDELSTEIN CENTER FOR PHILOSOPHY OF SCIENCE, ISRAEL
- 2018 “Interventionist Mental Causation and the Methods of Cognitive Neuroscience” (invited)
UNIVERSITY OF BRITISH COLUMBIA, CANADA
- 2017 “Disjunctive Antecedents for Causal Models” (invited)
Amsterdam Colloquium Workshop on Causality and Semantics

- INSTITUTE OF LOGIC, LANGUAGE, AND COMPUTATION, NETHERLANDS
- 2017 “Disjunctive Antecedents for Causal Models” (invited)
MCMP
LMU, GERMANY
- 2017 “Interventionist Mental Causation based on Neuroscientific Methods” (invited)
ECAP9 Symposium on “Current Trends in Neurophilosophy”
LMU, GERMANY
- 2017 “Learning Conditional & Causal Information by Jeffrey Imaging on Stalnaker Conditionals” (invited)
UNIVERSITY OF BRITISH COLUMBIA, CANADA
- 2017 “Learning Conditional & Causal Information by Jeffrey Imaging on Stalnaker Conditionals” (invited)
UNIVERSITY OF BAYREUTH, GERMANY
- 2017 “Causation as Production” (invited)
LMU, GERMANY
- 2017 “Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals” (invited)
CAS Workshop “Learning Conditionals”
LMU, GERMANY
- 2016 “The Predictive Role and Content of Memory in Friston’s Free Energy Framework” (refereed)
Workshop on Memory Consolidation
VENICE INTERNATIONAL UNIVERSITY, ITALY
- 2016 “Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals” (refereed)
International Rationality Summer Institute
JUSTUS LIEBIG UNIVERSITY, GERMANY
- 2016 “Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals” (refereed)
The Inaugural Conference of the East European Network for Philosophy of Science
NEW BULGARIAN UNIVERSITY, BULGARIA
- 2016 “A Ramsey Test Analysis of ‘Because’” (refereed)
2nd Munich Graduate Workshop in Mathematical Philosophy: Formal Epistemology
MCMP, LMU, GERMANY
- 2015 “Formal Intro to the Free Energy Principle and Bayesian Inference” (invited)

Opening lecture for the Predictive Brain Conference at Venice International University
SAN SERVOLO, ITALY

- 2015 “Intro to Non-Monotonic Logics, Artificial Neural Networks, and Complexity Considerations in the Horn Case” (invited)
TU MUNICH, GERMANY
- 2013 “A Reconstruction of Descartes’s Dream Argument” (refereed)
Presentation for the DGL (Decisions, Games, Logic)
ROYAL INSTITUTE OF TECHNOLOGY (KTH), STOCKHOLM, SWEDEN

SERVICE

- 2020 “Data, AI and Society Seminar Series”
ANU
Permanent Panelist for the public online seminar series
- 2020 Referee for *Erkenntnis, Philosophy of Science, Review of Symbolic Logic, Synthese*(2x).
- 2020 “Ethics of data science conference 2020”
UNIVERSITY OF SYDNEY
Program committee member
- 2019 Referee for *Journal of Philosophical Logic, Episteme, Philosophy of Science, Synthese*(2x)
- 2019 “Conditional Logics and Conditional Reasoning: New Joint Perspectives”
SCHLOSS DAGSTUHL, LEIBNIZ CENTER FOR INFORMATICS
Collector for the [Dagstuhl report](#)
- 2017 “Causation, Explanation, Conditionals”
GSN/BCCN/MCMP, LMU
Program chair
- 2016 “2nd Munich Graduate Workshop in Mathematical Philosophy: Formal Epistemology”
MCMP, LMU
Program committee member for the MCMP

RESEARCH STAYS

- 2018 “International Rationality Summer Institute 2018”
LMU MUNICH, IRSEE
- 2017 Research Stay
UNIVERSITY OF BRITISH COLUMBIA, KELOWNA

2016 “International Rationality Summer Institute 2016”
JUSTUS LIEBIG UNIVERSITY, AURICH

2015 “European Summer School of Logic, Language and
Computation”
UNIVERSITY POMPEU FABRA, BARCELONA

2011-12 “Studies in Philosophy and Cognitive Science”
UNIVERSITY PARIS-SORBONNE (PARIS IV), PARIS

SUPERVISION

2020 “Sleeping Beauty and Belief Updating” (Independent
Study with Honours Student)
HUON PORTEOUS
ANU

2019 “An Ethical Governor for Reinforcement Learning
Agents” (MA Thesis)
TORBEN SWOBODA
University of Bayreuth

REFERENCES

PROF. DDR. HANNES LEITGEB
Chair of Logic and Philosophy of Language
Head of the Munich Center for Mathematical Philosophy
LMU MUNICH
☎+49 (0) 89 2180 6171
✉Hannes.Leitgeb@lmu.de

PROF. DR. STEPHAN HARTMANN
Chair of Philosophy of Science
Head of the Munich Center for Mathematical Philosophy
LMU MUNICH
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PROF. DR. ALAN HÁJEK

Research Professor
School of Philosophy
AUSTRALIAN NATIONAL UNIVERSITY
☎+61 (0) 2 6125 214
✉Alan.Hajek@anu.edu.au

PROF. DR. IGOR DOUVEN
Research Professor
Sciences, Normes, Décision
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
UNIVERSITÉ PARIS IV – LA SORBONNE
☎+32 (0) 42 86 4025
✉Igor.Douven@sorbonne-universite.fr

PROF. DR. GREGORY WHEELER
Professor of Theoretical Philosophy & Computer
Science
Director of the Centre for Human and Machine Intelligence
FRANKFURT SCHOOL OF FINANCE AND MANAGEMENT
✉G.Wheeler@fs.de

PROF. DR. OLIVIER ROY
Chair of Philosophy I
Department Chair of Philosophy
UNIVERSITY OF BAYREUTH
☎+49 (0) 921 55 4151
✉Olivier.Roy@uni-bayreuth.de

PROF. DR. DR. HC. JULIAN NIDA-RÜMELIN, FORMER
MINISTER OF STATE
Former Chair of Philosophy and Political Theory
LMU MUNICH
✉Julian.Nida-Ruemelin@lrz.uni-muenchen.de

EARLY LIFE

2008 University Entrance Diploma (“Abitur”)

1988 Born in Laupheim, Baden-Württemberg