

Mario Günther

RESEARCH PROFILE

I apply logical and mathematical tools to philosophical problems in Epistemology, Metaphysics, and the Philosophies of Science, Language, Law, and AI.

EMPLOYMENT

22- Assistant Professor

Munich Center for Mathematical Philosophy
LMU MUNICH

Academic Visitor 2024

NEW YORK UNIVERSITY

Academic Visitor 2022

UNIVERSITY OF EDINBURGH

19-21 Research Fellow

“Humanising Machine Intelligence”

AUSTRALIAN NATIONAL UNIVERSITY

Academic Visitor 2021

LONDON SCHOOL OF ECONOMICS & POLITICAL
SCIENCE

18-19 Research Fellow

“Reasoning with Conditionals” (DFG Project)

UNIVERSITY OF REGENSBURG

EDUCATION

2019 PhD in Philosophy

“Learning, Conditionals, Causation”

*Munich Center for Mathematical Philosophy &
Graduate School of Systemic Neurosciences*

LMU MUNICH

Hannes Leitgeb, Stephan Hartmann

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

2012 Bachelor in Philosophy and Cognitive Science

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

ALBERT LUDWIG UNIVERSITY FREIBURG

Erasmus Year 2011-12

UNIVERSITÉ PARIS-SORBONNE (PARIS IV)

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🗣 English, German, French, Ancient Greek

JOURNAL ARTICLES

2023 “A Lewisian Regularity Theory” (with Holger
Andreas)

Philosophical Studies (forthcoming)

“A Regularity Theory of Causation” (with Holger
Andreas)

Pacific Philosophical Quarterly (forthcoming)

“Actual Causation” (with Holger Andreas)

dialectica (forthcoming)

“Epistemic Sensitivity and Evidence”

Inquiry (forthcoming)

“Counterfactuals for Causal Responsibility in
Legal Contexts” (with Holger Andreas and
Matthias Armgardt)

Artificial Intelligence and Law 31: 115-132.

“Bayesians Still Don’t Learn from Conditionals”
(with Borut Trpin)

Acta Analytica 38(3): 439-451.

2022 “Causal and Evidential Conditionals”

Minds and Machines 32: 613-626.

“Ramsey’s Conditionals” (with Caterina Sisti)

Synthese 200(165): 1-31.

“A Connexive Conditional”

Logos and Episteme 13(1): 55-63.

“Algorithmic and Human Decision Making: For a
Double Standard of Transparency” (with Atoosa
Kasirzadeh)

AI & Society 37: 375-381.

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

Journal of Philosophy 118(12): 680-701.

“A Ramsey Test Analysis of Causation for Causal
Models” (with Holger Andreas)

British Journal for the Philosophy of Science 72(2):
587-615.

- 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.
- 2018 “Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals”
Journal of Philosophical Logic 47 (5): 851-876.
Wolfgang Stegmüller Award 2022
- 2017 “Learning Conditional and Causal Information by Jeffrey Imaging on Stalnaker Conditionals”
Organon F, 24(4): 456-486.

ENCYCLOPEDIA ENTRIES

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

CONFERENCE PROCEEDINGS

- 2019 “Defining Selection Functions” (with Holger Andreas)
The Logica Yearbook 2018, 1-13.
- 2017 “Disjunctive Antecedents for Causal Models”
Proceedings of the 21st Amsterdam Colloquium, 25-34.

OTHER PUBLICATIONS

- 2023 “Kann Europas KI Gesetz eine lebenswerte Zukunft bewahren?” (with William D’Alessandro)
prae/faktisch (German)
- 2020 “Large-scale facial recognition is incompatible with a free society” (with Seth Lazar and Claire Benn)
The Conversation.
- “Was wird die Künstliche Intelligenz für Versicherungsunternehmen bedeuten?” (German)
prae/faktisch.
- 2018 “What’s Hot in Mathematical Philosophy?”
The Reasoner, 12 (11): 90-91.
- 2014 “Logical Symbolicism vs. Dynamicist Connectionism: Is there a Difference in Computational Power?”
Incipiens, 2(1): 5-28.

AWARDS & GRANTS

- 24-25 LMUexcellent Grant 49,630€
Junior Research Fund
LMU MUNICH
- 23/24 Researcher in Residence ≈30,000€
Center for Advanced Studies
LMU MUNICH
- 2023 Grant for Teaching “Democracy & AI” 16,620€
Venice International University
LMU MUNICH
- 2022 Wolfgang Stegmüller Award 4,000€
“Learning Conditional Information by Jeffrey Imaging on Stalnaker Conditionals”
GERMAN SOCIETY FOR ANALYTIC PHILOSOPHY
- “A Unifying Theory of Conditionals”
Walter Benjamin Grant (declined)
DEUTSCHE FORSCHUNGSGEMEINSCHAFT (DFG)
- 19-22 Postdoctoral Research Fellow
Grand Challenge Humanising Machine Intelligence
AUSTRALIAN NATIONAL UNIVERSITY
- 18-19 Postdoctoral Research Fellow
DEUTSCHE FORSCHUNGSGEMEINSCHAFT (DFG)
- 15-19 Doctoral Fellowship Grant
GRADUATE SCHOOL OF SYSTEMIC NEUROSCIENCE
- 2014 Top 10% of the master students of the Munich Center for Mathematical Philosophy (refund of study fees)
- 11-12 Grant for independent studies
UNIVERSITÉ PARIS-SORBONNE (PARIS IV)
- 09/10 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

TEACHING EXPERIENCE

Instructor at LMU MUNICH

- 2023 “Knowledge, Belief, and Degrees of Belief”
“Democracy & AI” (*Venice International University*)
- 22/23 “Introduction to Decision Theory” (German)
“Introduction to Scientific Working” (German)

2022 “Introduction to Decision Theory” (German)
“Causation”

Instructor at AUSTRALIAN NATIONAL UNIVERSITY

2021 “Philosophy, AI, and Society”
with Pamela Robinson and Sarita Rosenstock

2020 “Conditionals” (Seminar for PhD students)
with Alan Hájek

Instructor at UNIVERSITY OF BAYREUTH

2020 “Fair Machine Learning”

2019 “Decisions, Fairness, and Machine Learning”

2018 “Decisions and Machines”

2017 “Philosophy of AI”

Teaching Assistant

2020 “Logic & Critical Thinking”
Colin Klein, ANU

2019 “The Moral and Political Philosophy of AI”
Seth Lazar, ANU

2018 “Ethics of AI”
Fiorella Battaglia & Atoosa Kasirzadeh, LMU

“Versions of Realism”
Julian Nida-Rümelin, LMU

17/18 “Logic I” (German)
Hannes Leitgeb, LMU

2017 “Epistemology and Ethics”
Julian Nida-Rümelin, LMU

“Intro to Philosophy of Science” (German)
Alexander Reutlinger, LMU

2016 “Intro to Philosophy of Science” (German)
Alexander Reutlinger, LMU

“The Foundation of the Philosophy of Morals
with Kant” (German)
Fiorella Battaglia, LMU

15/16 “Human Liberty vs. Freedom of Will” (German)
Fiorella Battaglia, LMU

2015 “Responsibility in the Sciences and Technology”
Fiorella Battaglia, LMU (German)

“Philosophy of Mind”
Stephan Sellmaier, LMU

14/15 “Life-form and Science” (German)
Fiorella Battaglia, LMU

“Metaethics: Constructivism and Realism”
Fiorella Battaglia, LMU (German)

2014 “Metaethical Foundation of Moral Reasoning”
Fiorella Battaglia, LMU (German)

13/14 “Robotisation of Warfare. Risk, Ethics and
Politics” (German)
Fiorella Battaglia, LMU

10/11 “Cognitive Science II” (German)
Gerhard Strube
ALBERT LUDWIG UNIVERSITY FREIBURG

“Logic I” (German)
Markus Junker
ALBERT LUDWIG UNIVERSITY FREIBURG

ORGANISATION OF EVENTS

2023 Seminar “Democracy & AI”
VENICE INTERNATIONAL UNIVERSITY, SAN
SERVOLO, ITALY
Organizer

2022 Workshop “Responsibility & AI”
UNIVERSITY OF VIENNA
Co-organizer

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

Workshop “Knowledge of Knowledge”
UNIVERSITY OF REGENSBURG
Co-organizer

2018 Seminar “The Ethics of Artificial Intelligence”
VENICE INTERNATIONAL UNIVERSITY, SAN
SERVOLO, ITALY
Co-organizer

2018 Seminar “Versions of Realism”
VENICE INTERNATIONAL UNIVERSITY, SAN
SERVOLO, ITALY
Co-organizer

2017 International Workshop “Democracy as a Form
of Life”
PARMENIDES FOUNDATION, GERMANY
Co-organizer

ECAP9 Symposium on “Current Trends in
Neurophilosophy”

LMU MUNICH, GERMANY
Organizer at the 9th European Congress of
Analytic Philosophy

Conference “Causation, Explanation,
Conditionals”
EV. AKADEMIE, TUTZING (LAKE STARNBERG) AND
LMU MUNICH, GERMANY

Main organizer of an international conference
supported by the Graduate School of Systemic
Neuroscience, the Bernstein Center for
Computational Neuroscience, and the Munich
Center for Mathematical Philosophy

Seminar “Epistemology and Ethics”
VENICE INTERNATIONAL UNIVERSITY, SAN
SERVOLO, ITALY
Co-organizer

2015 Conference “Predictive Brain”
VENICE INTERNATIONAL UNIVERSITY, SAN
SERVOLO, ITALY
Co-Organizer

RECENT TALKS

2023 “A Theory of Responsibility for Artificial Agents”
(invited)

Workshop on Reasoning about Responsible Agency in AI
INSTITUTE FOR LOGIC, LANGUAGE, AND
COMPUTATION, UNIVERSITY OF AMSTERDAM

“Legal Proof is Rational Belief of Guilt” (refereed)
Central APA 2023
DENVER

2022 “Probability of Guilt” (refereed)
GAP.11
HUMBOLDT UNIVERSITY OF BERLIN

“Legal Proof is Rational Belief of Guilt” (refereed)
*96th Joint Session of the Aristotelian Society and the
Mind Association*
UNIVERSITY OF ST ANDREWS

“Actual Causation” (invited)
The LSE Choice Group
LONDON SCHOOL OF ECONOMICS & POLITICAL
SCIENCE

SERVICE

2023 “ACM Conference on Fairness, Accountability,
and Transparency”
Chicago, USA
Program committee member

2022 “ACM Conference on Fairness, Accountability,
and Transparency”
Seoul, South Korea
Program committee member

2020 “Data, AI and Society Seminar Series”
AUSTRALIAN NATIONAL UNIVERSITY
Permanent Panelist for the public online seminar
series

“Ethics of data science conference 2020”
UNIVERSITY OF SYDNEY
Program committee member

2019 “Conditional Logics and Conditional Reasoning:
New Joint Perspectives”
SCHLOSS DAGSTUHL, LEIBNIZ CENTER FOR
INFORMATICS
Collector for the [Dagstuhl report](#)

2017 “Causation, Explanation, Conditionals”
GRADUATE SCHOOL OF SYSTEMIC NEUROSCIENCE,
BERNSTEIN CENTER FOR COMPUTATIONAL
NEUROSCIENCE, MUNICH CENTER FOR
MATHEMATICAL PHILOSOPHY, LMU MUNICH
Program chair

JOURNAL REVIEWING

Synthese (14x), *Journal of Philosophical Logic* (5x), *Philosophical
Studies* (4x), *Analysis* (3x), *Mind & Language* (3x), *Erkenntnis*
(2x), *Philosophy of Science* (2x), *Minds and Machines*
(2x), *Theoria* (2x), *Artificial Intelligence* (2x), *British Journal
for the Philosophy of Science* (2x), *Australasian Journal of Phi-
losophy*, *Canadian Journal of Philosophy*, *Noûs*, *Philosophical
Quarterly*, *Kriterion*, *Philosophia*, *Episteme*, *European Jour-
nal for Philosophy of Science*, *Review of Symbolic Logic*.

RESEARCH STAYS

- 2024 “Academic Visitor”
NEW YORK UNIVERSITY
- 2022 “Academic Visitor”
UNIVERSITY OF EDINBURGH
- 2021 “Academic Visitor”
LONDON SCHOOL OF ECONOMICS & POLITICAL
SCIENCE
- 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
- 11-12 “Studies in Philosophy and Cognitive Science”
UNIVERSITY PARIS-SORBONNE (PARIS IV), PARIS

SUPERVISION

- 2023 “The Limits of Technocracy”
MA Thesis of Victor Karl Magnússon
LMU MUNICH
- “The Distance Minimization Approach to the
Learning of Conditionals”
MA Thesis of Zahra Moghimkhan
LMU MUNICH
- “Climate Justice and Game Theory: An
Investigation of the Significance of Cooperation
and CO₂ Reductions in International Climate
Negotiations”
BA Thesis of Clara Goetz
LMU MUNICH
- 2020 “Sleeping Beauty and Belief Updating”
Independent Study with Honours Student Huon
Porteous
AUSTRALIAN NATIONAL UNIVERSITY
- 2019 “An Ethical Governor for Reinforcement
Learning Agents”
MA Thesis of 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
✉ Hannes.Leitgeb@lmu.de
- PROF. DR. STEPHAN HARTMANN
Chair of Philosophy of Science
Head of the Munich Center for Mathematical Philosophy
LMU MUNICH
✉ S.Hartmann@lmu.de
- PROF. DR. ALAN HÁJEK
Research Professor
School of Philosophy
AUSTRALIAN NATIONAL UNIVERSITY
✉ 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
✉ Igor.Douven@sorbonne-universite.fr
- PROF. DR. KATIE STEELE
Professor of Philosophy
School of Philosophy
AUSTRALIAN NATIONAL UNIVERSITY
✉ Katie.Steele@anu.edu.au
- 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
✉ 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