

Mario Günther

APPOINTMENTS

- 26- **Junior Professor**
Institute of History and Philosophy of Science and
Technology & Law School
PANTHÉON SORBONNE
- 22-25 **Assistant Professor**
Munich Center for Mathematical Philosophy
LMU MUNICH
Visiting Assistant Professor 2024-5
CARNEGIE MELLON UNIVERSITY
Junior Researcher in Residence 2023-4
Center for Advanced Studies, LMU MUNICH
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**
German Research Foundation
UNIVERSITY OF REGENSBURG

EDUCATION

- 2019 **PhD in Philosophy**
“Learning, Conditionals, Causation”
Munich Center for Mathematical Philosophy &
Graduate School of Systemic Neurosciences
LMU MUNICH
- 2015 **Master in Logic and Philosophy of Science**
“Non-Monotonic Logics, Artificial Neural Net-
works, and Complexity Considerations in the
Horn Case”
Munich Center for Mathematical Philosophy
LMU MUNICH
- 2012 **Bachelor in Philosophy and Cognitive Sci-
ence**
“The Methodology of Scientific Research Pro-
grammes as Modification of Popper’s Falsification-
ism”
ALBERT LUDWIG UNIVERSITY FREIBURG
Erasmus Year 2011-12
SORBONNE UNIVERSITY (PARIS IV)

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@ mario-guenther.com
🔍 Google Scholar
🗣 English, German, French, Ancient Greek

* indicates co-first-author

BOOK

- 2026 *From Reasons to Causes: A Theory of Causation* (with
Holger Andreas*)
Cambridge University Press (forthcoming)

JOURNAL ARTICLES

- 2026 “Bayesian Decision Theory Can Guide Legal
Factfinding”
Quaestio Facti 11: 1-18.
- 2025 Reply to Commentaries on “Factual Difference-
Making” (with Holger Andreas*)
Australasian Philosophical Review 9(2): 213-237.
“Factual Difference-Making” (with Holger
Andreas*)
Australasian Philosophical Review 9(2): 118-148.
Lead Article
- 2024 “Probability of Guilt”
Canadian Journal of Philosophy 54(3): 189-206.
“Legal Proof Should Be Justified Belief of Guilt”
Legal Theory 30(3): 129-41.
“A Lewisian Regularity Theory” (with Holger
Andreas*)
Philosophical Studies 181: 2145-2176.
“A Regularity Theory of Causation” (with Holger
Andreas*)
Pacific Philosophical Quarterly 105(1): 2-32.
“Epistemic Sensitivity and Evidence”
Inquiry 67(6): 1348-1366.
“Foundational Challenges in Assuring Alignment
and Safety of Large Language Models” (with Us-
man Anwar et al.)
Transactions on Machine Learning Research
- 2023 “Counterfactuals for Causal Responsibility in Le-
gal Contexts” (with Holger Andreas* and Matthias
Armgardt*)
Artificial Intelligence and Law 31(1): 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(4): 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(1): 375–381.

“Actual Causation” (with Holger Andreas*)
Dialectica 76(1): 1–44.

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

2026 “A Bayesian Justification for the Scenario Ap-
proach to Legal Proof” (with Conrad Friedrich)
Workshop on AI for Evidential Reasoning
CEUR Workshop 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 Ver-
sicherungsunternehmen bedeuten?” (German)
prae faktisch

2018 “What’s Hot in Mathematical Philosophy?”
The Reasoner, 12 (11): 90–91.

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

AWARDS & GRANTS

2026 Associated Funding for J. Prof. Chair €200,000
FRENCH NATIONAL RESEARCH AGENCY (ANR)

2025 AI Safety Tactical Opportunities Fund \$40,000
VANGUARD CHARITABLE ENDOWMENT PROGRAM

24–25 “Rational Belief and Guilt” €49,630
LMUexcellent Grant
EXCELLENCE INITIATIVE OF GERMANY

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”
 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
 SORBONNE UNIVERSITY (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 CARNEGIE MELLON UNIVERSITY

- 2025 “AI, Society, and Humanity”
 “The History of Analytic Philosophy and Its
 Influence”
- 2024 “AI, Society, and Humanity”

Instructor at LMU MUNICH

- 2024 “Legal Epistemology”
- 23/24 “Democracy & AI” (*Venice International University*)
- 2023 “Knowledge, Belief, and Degrees of Belief”
- 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”

ORGANISATION OF EVENTS

- 2024 Workshop “Theories of Legal Proof”
 CATHOLIC ACADEMY OF BAVARIA, MUNICH
 Main organizer of an international workshop
 supported by an LMUexcellent grant.
- 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

SELECTED RECENT TALKS

- 2025 “Factual Difference-Making” (refereed)
*12th International Congress of the Society for Analytic
Philosophy (GAP.12)*
HEINRICH-HEINE UNIVERSITY DÜSSELDORF
- “Comments on “Accuracy and Informativity of
Belief” (invited)
Formal Epistemology Workshop 2025
UNIVERSITY OF ICELAND
- “Causation and Deviancy” (refereed)
Pacific APA 2025
SAN FRANCISCO
- 2024 “How to Estimate $P(\text{Doom} \mid \text{AGI})?$ ” (invited)
AI, Safety, Ethics, and Society
CENTER FOR AI SAFETY

- 2023 “Legal Proof is Rational Belief of Guilt” (refereed)
Central APA 2023
DENVER
- 2022 “Probability of Guilt” (refereed)
*11th International Congress of the Society for Analytic
Philosophy (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

- 2026 Session Chair for the International Association
for Safe & Ethical AI (IASEAI’26)
- 2025 Referee for the International Association for Safe
& Ethical AI (IASEAI’26)
- 2024 Referee for a Consolidator Grant Proposal of the
European Research Council
- Referee for Swiss National Science Foundation
- “14th Tbilisi Symposium on Logic, Language and
Computation (TbiLLC 2023)”
Referee for post-proceedings
- “Essay Award of the Society for Analytic
Philosophy and *Grazer Philosophische Studien*”
Jury member
- 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

The Journal of Philosophy, *Noûs* (2x), *Mind* (2x), *Australasian Journal of Philosophy* (3x), *Philosophical Quarterly* (2x), *Canadian Journal of Philosophy* (3x), *Northern European Journal of Philosophy* (2x), *Journal of Philosophical Logic* (7x), *Review of Symbolic Logic*, *Philosophical Studies* (8x), *Analysis* (6x), *British Journal for the Philosophy of Science* (5x), *Mind & Language* (3x), *Erkenntnis* (7x), *Philosophy of Science* (2x), *Minds and Machines* (3x), *Synthese* (20x) *Theoria* (2x), *Artificial Intelligence* (2x), *AI and Ethics* (2x), *Ergo* (2x), *Kriterion*, *Quaestio Facti*, *Acta Analytica*, *Philosophia*, *Episteme*, *European Journal for Philosophy of Science*, *The Australasian Journal of Logic*.

RESEARCH STAYS

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

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

SUPERVISION

2025- “How Do Data Models Represent the World
Through Causal Mechanisms?”
PhD Student Hu Die
CARNEGIE MELLON UNIVERSITY

2026 “Quelle théorie des lois de la nature fournit un
meilleur cadre métaphysique pour les sciences ?”
MA Thesis of Seyed Farid Moulaei
PANTHÉON SORBONNE

“Généalogie et fécondité de l'hallucination IA :
Enquête sur un concept génératif”
MA Thesis of Côme Lupoglazoff
PANTHÉON SORBONNE

2025 “Full Belief, Degree-of-Belief, Comparative
Belief, and their Normative Interplay”
MA Thesis of Yannis Polychronopoulos
LMU MUNICH

2024 Postdoctoral Researcher Conrad Friedrich
Rational Belief and Guilt funded by LMUexcellent
LMU MUNICH

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
Co-Director of the Munich Center for Mathematical Philosophy
LMU MUNICH
✉ Hannes.Leitgeb@lmu.de

PROF. DR. STEPHAN HARTMANN
Chair of Philosophy of Science
Co-Director of the Munich Center for Mathematical Philosophy
LMU MUNICH
✉ S.Hartmann@lmu.de

PROF. DR. CHRISTIAN LIST
Chair of Philosophy and Decision Theory
Co-Director of the Munich Center for Mathematical Philosophy
LMU MUNICH
✉ C.List@lmu.de

PROF. DR. ALAN HÁJEK
Research Professor
School of Philosophy
AUSTRALIAN NATIONAL UNIVERSITY
✉ Alan.Hajek@anu.edu.au

PROF. DR. KATIE STEELE
Professor of Philosophy

School of Philosophy
AUSTRALIAN NATIONAL UNIVERSITY
✉ Katie.Steele@anu.edu.au

PROF. DR. IGOR DOUVEN
Research Professor
Sciences, Normes, Décision
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
SORBONNE UNIVERSITY (PARIS IV)
✉ 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
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PROF. DR. DR. HC. JULIAN NIDA-RÜMELIN, FORMER
MINISTER OF STATE
Founding Rector of the Humanistic University of Berlin
Former Chair of Philosophy and Political Theory
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