

Curriculum Vitae

Marie I. Kaiser

Prof. Dr.

Bielefeld University
Department of Philosophy
Postfach 100131
D-33501 Bielefeld
Germany
+49.176.840 67 837
kaiser.m@uni-bielefeld.de

Personal Information

Date of birth: March 16th, 1981
Place of birth: Schleswig
Nationality: German

Current Position

since 06/2018

Full Professor for Philosophy of Science (W3), Department of Philosophy, Bielefeld University, Germany

Areas of Specialization

General Philosophy of Science: scientific concepts, explanation, individual-based research, interdisciplinarity, methodology of philosophy of science, causality, reduction, complexity, normativity

Philosophy of Biology: reductive explanation, causal modeling, mechanistic explanation, biological individuality, ecological niche, animal personality, environment

Metaphysics: mechanisms, phenomena, part-whole relations, biological dispositions, causal systems, individuality/uniqueness

Work Experience

10/2023 – 06/2024

Parental leave, part-time work

11/2019 – 09/2023

Vice-Rector for Personnel Development and Gender Equality, Bielefeld University, Germany

10/2018 – 10/2019

Parental leave, part-time work

02/2018

Offer from the University of Mainz as a Full Professor and Director of the *Studium generale*

10/2016 – 05/2018

Junior Professor for Philosophy of Science, Department of Philosophy, Bielefeld University, Germany

08 – 09/2016

Visiting Fellow, University of Calgary, Canada

09/2013 – 09/2016

Postdoctoral Research Fellow, DFG Research Group "Causation and Explanation", University of Cologne, Germany

09/2012 – 08/2013

Postdoctoral Research Fellow, Department of Philosophy, University of Geneva, Switzerland

11/2009 – 08/2012	Research Fellow , DFG Research Group “Causation and Explanation”, Department of Philosophy, University of Cologne (since 04/2010) and University of Muenster, Germany
01 – 05/2010 + 04/2013	Visiting Scholar , Minnesota Center for Philosophy of Science, University of Minnesota, USA
04/2008 – 09/2009	Research Assistant , Center for Philosophy of Science, University of Muenster, Germany
05/2007 – 09/2010	Research Assistant , Department of Philosophy, University of Muenster, Germany
10/2003 – 04/2007	Student Assistant , University of Muenster, Germany

Education

10/2007 – 07/2012	PhD studies, University of Cologne (since 10/2010) and University of Muenster, Germany PhD examination in philosophy (Dr. phil.); PhD thesis on “An Ontic Account of Explanatory Reduction in Biology”; supervisors: Prof. Dr. Andreas Hüttemann (Cologne), Prof. Dr. Marcel Weber (Geneva); final grade: <i>summa cum laude (excellent)</i>
04/2005 – 04/2007	Master studies, University of Muenster, Germany Master of Arts in philosophy, biology (minor), educational science (minor); final grade: <i>1,05 (excellent)</i>
10/2001 – 07/2007	Teaching profession, University of Muenster, Germany State examination in philosophy and biology (certification as secondary teacher); final grade: <i>1,2/1,0 (excellent)</i>

Other Academic Activities

since 04/2024	Joint Institute for Individualisation in a Changing Environment (JICE), Universities of Münster & Bielefeld Member of the Managing Board
since 10/2023	Center for Interdisciplinary Research (ZiF), Bielefeld Director (non-managing)
since 10/2023	Mentoring-Programme „movement“, Bielefeld University Member of the Scientific Advisory Board
since 11/2021	Graduate School RTG “Constructing Explainability”, University of Paderborn, Germany Member of the Scientific Advisory Board
10/2016 – 10/2023	Leibniz Center for Science and Society, Leibniz University of Hannover, Germany

	Member of the Scientific Advisory Board
05/2018 – 04/2022	TRR-SFB 212, Bielefeld University, Germany Gender equality representative
09/2015 – 08/2018	Research project “From Biological Practice to Scientific Metaphysics”, Templeton Foundation, University of Calgary, Canada Co-investigator
09/2012 – 08/2014	Journal <i>dialectica</i>, University of Geneva, Switzerland Member of the Editorial Board
10/2011 – 09/2015	DFG-network “Philosophy of the Life Sciences in Germany” Founding member, http://www.philbio.de/
01/2008 – 08/2010	Center for Philosophy of Science, University of Muenster, Germany Member of the Management
10/2007 – 09/2008	Department of Philosophy, University of Muenster, Germany Assistant to the Head of Department
01/2007 – 01/2008	Center for Philosophy of Science, University of Muenster, Germany Member of the Managing Board

Third Party Funding & Prizes

240.647 EUR	Research project “ Cross-sectional Project Concept Formation ” (2022-2025), project in the research group “Individualization in Changing Environments” (InChangeE), funded by the Ministerium für Kultur und Wissenschaft d. Landes Nordrhein-Westfalen, PIs: Kaiser M.I., Malsch A.
496.000 EUR	Research project “ Individual-based Research: Concepts, Epistemology and Integration ” (2022-2025, No. 396781820), project in the Collaborative Research Center “A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution” (TRR-SFB 212), funded by the German Research Foundation (DFG), PIs: Kaiser M.I., Elliott-Graves A.
469.700 EUR	Research project “ Complex Biological Dispositions: A Case Study in the Metaphysics of Biological Practice ” (2020-2023, No. 288923097), project in the research group “Inductive Metaphysics” (FOR 2495/2), funded by the German Research Foundation (DFG), PI: Kaiser M.I.
3.770.745 EUR	Graduate school „ Integrating Ethics and Epistemology of Scientific Research “ (2020-2024, GRK 2073/2), funded by the German Research Foundation (DFG), PIs: Willholt T., Carrier M., Feest U., Frisch M., Hübner D., Kaiser M.I., Reydon T., Stöcker R.
5.000 EUR	Teaching project “ Training Basic Philosophical Skills: Structural Reading, Analyzing Arguments, Searching Literature, and Quoting ” (2018-2019), funded by Qualitätsfond für die Lehre, Bielefeld University, PI: Kaiser M.I.

167.200 EUR	Research project “ The Ontological Status of Individualised Niches ” (2018-2021, No. 396781820), project in the Collaborative Research Center “A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution” (TRR-SFB 212), funded by the German Research Foundation (DFG), PI: Kaiser M.I.
5.000 EUR	Teaching project “ Using Video Tutorials in Teaching Basic Philosophical Skills ” (2017-2018), funded by Qualitätsfond für die Lehre, Bielefeld University, PI: Kaiser M.I.
5.000 EUR	Offermann-Hergarten Award from the University of Cologne for the book “Reductive Explanation in the Biological Sciences” (2016)

Publications

Authored Books	<p>Kaiser M. I. (2015): <i>Reductive Explanation in the Biological Sciences</i> (History, Philosophy and Theory of the Life Sciences; Vol. 16). Cham: Springer. [360 pages]</p> <p>Kaiser M. I. (2008): <i>Die Debatte um die Einheiten der natürlichen Selektion</i>. Pluralistische Lösungsansätze. Saarbrücken: VDM. [131 pages]</p>
Edited Books	<p>Kaiser M. I., Scholz O., Plenge D., Hüttemann A. (2014) (eds.): <i>Explanation in the Special Sciences – The Case of Biology and History</i> (Synthese Library; Vol. 367). Dordrecht: Springer. [366 pages]</p> <p>Kaiser M. I., Seide A. (2013) (eds.): <i>Philip Kitcher – Pragmatic Naturalism</i>. Frankfurt/Main: ontos. [205 pages]</p>
Journal Papers	<p>Kaiser M. I., Morrow K. H. (2025): On the Epistemic Roles of the Individualized Niche Concept in Ecology, Behavioral Biology, and Evolutionary Biology. <i>Philosophy of Science</i> 92(1): 162-184. DOI: 10.1017/psa.2024.48</p> <p>Heger T., Elliott-Graves A., Kaiser M. I., et al. (2025): Looking beyond Popper: How philosophy can be relevant to ecology. <i>Oikos</i> 2025(2): e10994. DOI: 10.1111/oik.10994</p> <p>Kaiser M. I., Killin A., Abendroth A.-K., et al. (2024): Individualisation and Individualised Science Across Disciplinary Perspectives. <i>European Journal for Philosophy of Science</i> 14: 41. DOI: 10.1007/s13194-024-00602-8</p> <p>Kaiser M. I., Gadau J., Kaiser S., et al. (2024): Individualized social niches in animals: Theoretical clarifications and processes of niche change. <i>BioScience</i> 74: 146-158. DOI: 10.1093/biosci/biad122</p> <p>Malsch A. K. F., Killin A., Kaiser M. I. (2024): Health-Oriented Environmental Categories, Individual Health Environments, and the Concept of Environment in Public Health. <i>Health Care Analysis</i> 32: 141-164. DOI: 10.1007/s10728-023-00477-5</p> <p>Trappes R., Nematipour B., Kaiser M. I., et al. (2022): How Individualized Niches Arise: Defining Mechanisms of Niche Construction, Niche Choice, and Niche Conformance. <i>BioScience</i> 72(6): 538-548. DOI: 10.1093/biosci/biac023</p>

Kaiser M. I., Müller C. (2021): What Is an Animal Personality? *Biology & Philosophy* 36(1). DOI: 10.1007/s10539-020-09776-w

Kaiser M. I., Trappes R. (2021): Broadening the Problem Agenda of Biological Individuality: Individual Differences, Uniqueness, and Temporality. *Biology & Philosophy* 36(2). DOI: 10.1007/s10539-021-09791-5

Kaiser M. I. (2019): Interdisziplinarität und die Philosophie. Stellungnahmen von Marie I. Kaiser und Albert Newen. *Information Philosophie* 2: 50-55.

Kaiser M. I. (2019): Normativity in the Philosophy of Science. *Metaphilosophy* 50 (1-2): 36-62. DOI: 10.1111/meta.12348

Kaiser M. I. (2018): ENCODE and the Parts of the Human Genome. *Studies in History and Philosophy of Biological and Biomedical Sciences* 72: 28-37. DOI: 10.1016/j.shpsc.2018.10.008

Kaiser M. I., Krickel B. (2017): The Metaphysics of Constitutive Mechanistic Phenomena. *The British Journal for the Philosophy of Science* 68(3): 745-779. DOI: 10.1093/bjps/axv058

Kaiser M. I. (2016): On the Limits of Causal Modeling: Spatially-Structurally Complex Biological Phenomena. *Philosophy of Science* 83: 921-933. DOI: 10.1086/687875

Kaiser M. I., Meunier R., Kronfeldner M. (2016): Problems and Prospects of Interdisciplinarity: The Case of Philosophy of Science. *Interdisciplinary Science Reviews* 41(1): 61-70.

Kaiser M. I., Meunier R., Kronfeldner M. (2015): Problems and Prospects of Interdisciplinary Philosophy of Science: A Report from the Workbench. *Briefe zur Interdisziplinarität* 15, 32-41.

Kaiser M. I., Meunier R., Kronfeldner M. (2014): Interdisciplinarity in Philosophy of Science. *Journal for General Philosophy of Science* 45: 59-70.

Netzwerk für Philosophie der Lebenswissenschaften in Deutschland (2013): Philosophie der Lebenswissenschaften. Entwicklungen und Tendenzen. *Information Philosophie* 4: 14-27.

Kaiser M. I. (2011): Limits of Reductionism in the Life Sciences. *History and Philosophy of the Life Sciences* 33: 453-476.

Book Chapters

Hundertmark F., Ferreria Ruiz M., **Kaiser M. I.**, Suárez J. (2025): Causal Bases of Potentialities in the Life Sciences. Extrinsicity, Multi-levelness, and Processuality, in: Hüttemann A., Schurz G. (eds.): *Inductive Metaphysics: Insights, Challenges and Prospects*. Routledge.

Kaiser M. I., Suarez, J. (2025): Metaphysics of Scientific Practice. in: Currie A., Veigl S. (eds.): *Methods in the Philosophy of Science: A User's Guide*. MIT Press, 309-330.

Kaiser M. I., Krickel B. (2025): Individuation of Cross-Cutting Causal Systems in Cognitive Science and Behavioral Ecology, in: Illari P. K., Russo F. (eds.): *The Routledge Handbook of Causality and Causal Methods*. New York: Routledge, 202-214.

Kaiser M. I., Trappes R. (2023): Individual-Level Mechanisms in Ecology and Evolution, in: Bausman W., Baxter J. K., Lean O. M. (eds.):

From Biological Practice to Scientific Metaphysics. Minneapolis: University of Minnesota Press, 116-152.

Kaiser M. I. (2021): Explanation in Evo-Devo, in: de la Rosa L. N., Müller G. B. (eds.): *Evolutionary Developmental Biology - A Reference Guide*. Cham: Springer, 357-370.

Kaiser M. I. (2020): Was ist gute Wissenschaft? Philip Kitcher, in: Müller-Salo J. (ed.): *Analytische Philosophie. Eine Einführung in 16 Fragen und Antworten*. Paderborn: Wilhelm Fink, 111-123.

Kaiser M. I. (2018): Individuating Part-whole Relations in the Biological World, in: Bueno O., Chen R.-L., Fagan M. B. (eds.): *Individuation, Process and Scientific Practices*. Oxford: Oxford University Press, 63-87.

Hüttemann A., **Kaiser M. I. (2018)**: Potentiality in Biology, in: Engelhard K., Quante M. (eds.): *Handbook of Potentiality*. Dordrecht: Springer, 401-427.

Kaiser M. I. (2018): The Components and Boundaries of Mechanisms, in: Glennan S., Illari P. (eds.): *The Routledge Handbook of Mechanisms and Mechanical Philosophy*. New York: Routledge, 116-130.

Kaiser M. I. (2017): Biological Parts, in: Burkhardt H., Seibt J., Imaguire G., Gerogiorgakis S. (eds.): *Handbook of Mereology*. München: Philosophia, 97-100.

Kaiser M. I. (2017): Themen aus den Lebenswissenschaften, in: Schrenk M. (ed.): *Handbuch Metaphysik*. Stuttgart: Metzler, 325-330.

Gebharter A., **Kaiser M. I. (2014)**: Causal Graphs and Biological Mechanisms, in: Kaiser M. I., Scholz O., Plenge D., Hüttemann A. (eds.): *Explanation in the Special Sciences – The Case of Biology and History*. Dordrecht: Springer, 55-86.

Kaiser M. I., Plenge D. (2014): Introduction: Points of Contact between Biology and History, in: Kaiser, M. I., Scholz O., Plenge D., Hüttemann A. (eds.): *Explanation in the Special Sciences – The Case of Biology and History*. Dordrecht: Springer, 1-23.

Kaiser M. I. (2014): L'explication en biologie, in: Merlin F., Hoquet T. (eds.): *Précis de Philosophie de la biologie*. Paris: Vuibert Press, 143-155.

Kaiser M. I., Craver C. F. (2013): Mechanisms and Laws: Clarifying the Debate, in: Chao H.-K., Chen S.-T., Millstein R. (eds.): *Mechanism and Causality in Biology and Economics*. Dordrecht: Springer, 125-145.

Jung E.-M., **Kaiser M. I., Seide A. (2013)**: Well-Ordered Philosophy? Reflections on Kitcher's Proposal for a Renewal of Philosophy, in: Kaiser M. I., Seide A. (eds.): *Philip Kitcher – Pragmatic Naturalism*. Frankfurt/Main: ontos, 161-174.

Kaiser M. I. (2013): Complexity, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 456-460.

Kaiser M. I. (2013): Reduction, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 1827-1830.

Hüttemann A., **Kaiser M. I. (2013)**: Disposition, in: Dubitzky W., Wolkenhauer O., Cho K.-H., Yokota H. (eds.): *Encyclopedia of Systems Biology*, Vol. X. New York: Springer, 594-597.

	<p>Kaiser M. I. (2012): Why It Is Time to Move Beyond Nagelian Reduction, in: Dieks D., Gonzalez W. J., Hartmann S., Stöltzner M., Weber M. (eds.): <i>Probabilities, Laws, and Structures</i>. The Philosophy of Science in a European Perspective, Vol. 3. Heidelberg: Springer, 255-272.</p> <p>Kaiser M. I. (2010): Der evolutionäre Naturalismus in der Ethik, in: Oehler J. (ed.): <i>Der Mensch - Evolution, Natur und Kultur: Beiträge zu unserem heutigen Menschenbild</i>. Berlin: Springer, 261-283.</p> <p>Göhner J., Kaiser M. I., Suhm C. (2008): Is Simplicity an Adequate Criterion of Theory Choice?, in: Mößner N., Schmoranz S., Weidemann C. (eds.): <i>Richard Swinburne</i>. Frankfurt/Main: ontos, 33-45.</p> <p>Kaiser M. I., Rosenhagen R., Suhm C. (2006): Experience Becoming Fully Literate. Van Fraassen on the Verge of Constructivism, in: Berg-Hildebrand A., Suhm C. (eds.): <i>The Philosophy of Bas C. van Fraassen</i>. Frankfurt/Main: ontos, 69-79.</p> <p>Backmann M., Berg-Hildebrand A., Kaiser M. I., Pohl M., Rosenhagen R., Suhm C. (2005): Pragmatism, Realism, and Science, in: Vieth A. (ed.): <i>Richard Rorty. His Philosophy under Discussion</i>. Frankfurt/Main: ontos, 65-78.</p>
Preprints	<p>Morrow K. H., van den Bos M., Elliott-Graves A., Kaiser M. I. (2024): Individual-Based Research: Concepts, Epistemology and Integration. OSF. Open Access. DOI: 10.17605/OSF.IO/X3HSJ</p> <p>Krüger O., Caspers B., Chakarov N., Elliott-Graves A., Kaiser M. I., Korsten P., Kurtz J., et al. (2021): Individualised Niches: An Integrative Conceptual Framework Across Behaviour, Ecology, and Evolution, <i>EcoEvoRxiv</i>, May 20. doi:10.32942/osf.io/7h5xq.</p>
Book Reviews & Conference Reports	<p>Kaiser M. I. (2019): Scott Lidgard; Lynn K. Nyhart, eds. Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives, in: <i>Isis</i> 110: 146-147.</p> <p>Kaiser M. I. (2015): Philosophy of Microbiology, in: <i>International Studies in the Philosophy of Science</i> 29: 224-228.</p> <p>Kaiser M. I. (2014): Causality in the Biological Sciences, 17 January, in: <i>The Reasoner</i> 8(3): 28-29.</p>
Dissertation	<p>Kaiser M. I. (2012): <i>An Ontic Account of Explanatory Reduction in Biology</i>; PhD thesis, University of Cologne (published online via KUPS; http://kups.ub.uni-koeln.de/6021/).</p>
	<p>All papers and chapters are available on my website (http://marie-kaiser.de/).</p>

List of Courses Taught

If not indicated otherwise, the course language was German.

Bielefeld University

Summer term 2025

Sabbatical

Winter term 2024/25

Sabbatical

Summer term 2024	Object Disciplines & Colloquium Science Studies (in English) Philosophy of the Life Sciences Colloquium (in English)
Winter term 2023/24	Introduction to Science Studies (in English) I ² SoS Colloquium (in English/German) Philosophy of the Life Sciences Colloquium (in English)
Summer term 2023	I ² SoS Colloquium (in English/German) PhilBio Team Meeting (in English)
Winter term 2022/23	Introduction to Science Studies (in English) PhilBio Team Meeting (in English)
Summer term 2022	I ² SoS Colloquium (in English/German) PhilBio Team Meeting (in English)
Winter term 2021/22	Introduction to Science Studies (in English) PhilBio Team Meeting (in English)
Summer term 2021	PhilBio Team Meeting (in English)
Winter term 2020/21	Master-Colloquium Practical and Theoretical Philosophy PhilBio Team Meeting (in English)
Summer term 2020	PhilBio Team Meeting (in English)
Winter term 2019/20	Transformative Experiences PhilBio Team Meeting (in English)
Summer term 2019	Master-Colloquium Practical and Theoretical Philosophy Object Disciplines & Colloquium Science Studies (in English) I ² SoS Colloquium (in English/German)
Winter term 2018/19	Science and Ethics I ² SoS Colloquium (in English/German)
Summer term 2018	Colloquium Science Studies (in English) I ² SoS Colloquium (in English/German)
Winter term 2017/18	Classical Texts in Epistemology Master-Colloquium Practical and Theoretical Philosophy
Summer term 2017	Philosophical Writing: Explanation and Understanding The Boundaries of Science
Winter term 2016/17	Do Electrons and Genes Really Exist? The Debate about Scientific Realism Philosophy of Biology
	University of Duesseldorf
Summer term 2015	Metaphysics of Science
	University of Cologne
Summer term 2015	Introduction to Metaphysics
Winter term 2013/14	Descartes' Meditations
	University of Lausanne
Summer term 2013	Philosophy of the Life Sciences (in English)

Summer term 2013	University of Geneva Realism, Representation, and Structuralism (in English, with M. Weber) Biological Interest Group (in English, with M. Weber)
Winter term 2012/13	Biological Interest Group (in English, with M. Weber)
Winter term 2011/12	University of Cologne Philosophy of Biology
Summer term 2011	University of Muenster The Philosophy Philip Kitcher's (with A. Seide)
Summer term 2010	How Scientists Explain the World
Winter term 2009/10	Why it is so Hard to Be a Reductionist (with A. Hüttemann)
Summer term 2009	The Mechanistic Philosophy from the Beginning to Modern Day Evolution under Discussion
Winter term 2008/09	Introduction to Philosophy of Science What Characterizes Science?
Summer term 2008	The Question of Realism in Biology (with C. Suhm) Introduction to the Debate about Reductionism Is Darwin Right? The Theory of Evolution in the Social and Scientific Discourse
Winter term 2007/08	Introduction to Philosophy of Biology Problems in Medical Ethics (with C. Runtenberg)
Summer term 2007	Theoryladenness of Observation

Bielefeld, 28th March, 2025

