

# Curriculum Vitae

Marie I. Kaiser

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## Personal Information

Date of birth: March 16<sup>th</sup>, 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:** explanation, reductionism, causality, complexity, methodology of philosophy of science, interdisciplinarity, normativity, science & society

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

**Metaphysics:** mechanisms, phenomena, part-whole relations, biological dispositions, 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	<b>Research Fellow</b> , 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	<b>Visiting Scholar</b> , Minnesota Center for Philosophy of Science, University of Minnesota, USA
04/2008 – 09/2009	<b>Research Assistant</b> , Center for Philosophy of Science, University of Muenster, Germany
05/2007 – 09/2010	<b>Research Assistant</b> , Department of Philosophy, University of Muenster, Germany
10/2003 – 04/2007	<b>Student Assistant</b> , University of Muenster, Germany

## Education

10/2007 – 07/2012	<b>PhD studies, University of Cologne</b> (since 10/2010) and <b>University of Muenster, Germany</b> 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	<b>Master studies, University of Muenster, Germany</b> Master of Arts in philosophy, biology (minor), educational science (minor); final grade: <i>1,05 (excellent)</i>
10/2001 – 07/2007	<b>Teaching profession, University of Muenster, Germany</b> 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	<b>Joint Institute for Individualisation in a Changing Environment (JICE), Universities of Münster &amp; Bielefeld</b> Member of the Managing Board
since 10/2023	<b>Center for Interdisciplinary Research (ZiF), Bielefeld</b> Director (non-managing)
since 10/2023	<b>Mentoring-Programme „movement“, Bielefeld University</b> Member of the Scientific Advisory Board
since 11/2021	<b>Graduate School RTG “Constructing Explainability”, University of Paderborn, Germany</b> Member of the Scientific Advisory Board
10/2016 – 10/2023	<b>Leibniz Center for Science and Society, Leibniz University of Hannover, Germany</b>

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

### Third Party Funding & Prizes

<b>240.647 EUR</b>	Research project “ <b>Cross-sectional Project Concept Formation</b> ” (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.
<b>496.000 EUR</b>	Research project “ <b>Individual-based Research: Concepts, Epistemology and Integration</b> ” (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.
<b>469.700 EUR</b>	Research project “ <b>Complex Biological Dispositions: A Case Study in the Metaphysics of Biological Practice</b> ” (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.
<b>3.770.745 EUR</b>	Graduate school „ <b>Integrating Ethics and Epistemology of Scientific Research</b> “ (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.
<b>5.000 EUR</b>	Teaching project “ <b>Training Basic Philosophical Skills: Structural Reading, Analyzing Arguments, Searching Literature, and Quoting</b> ” (2018-2019), funded by Qualitätsfond für die Lehre, Bielefeld University, PI: Kaiser M.I.

167.200 EUR	Research project “ <b>The Ontological Status of Individualised Niches</b> ” (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 “ <b>Using Video Tutorials in Teaching Basic Philosophical Skills</b> ” (2017-2018), funded by Qualitätsfond für die Lehre, Bielefeld University, PI: Kaiser M.I.
5.000 EUR	<b>Offermann-Hergarten Award</b> from the University of Cologne for the book “Reductive Explanation in the Biological Sciences” (2016)

## Publications

<b>Authored Books</b>	<p><b>Kaiser M. I. (2015):</b> <i>Reductive Explanation in the Biological Sciences</i> (History, Philosophy and Theory of the Life Sciences; Vol. 16). Cham: Springer. [360 pages]</p> <p><b>Kaiser M. I. (2008):</b> <i>Die Debatte um die Einheiten der natürlichen Selektion</i>. Pluralistische Lösungsansätze. Saarbrücken: VDM. [131 pages]</p>
<b>Edited Books</b>	<p><b>Kaiser M. I., Scholz O., Plenge D., Hüttemann A. (2014)</b> (eds.): <i>Explanation in the Special Sciences – The Case of Biology and History</i> (Synthese Library; Vol. 367). Dordrecht: Springer. [366 pages]</p> <p><b>Kaiser M. I., Seide A. (2013)</b> (eds.): <i>Philip Kitcher – Pragmatic Naturalism</i>. Frankfurt/Main: ontos. [205 pages]</p>
<b>Journal Papers</b>	<p><b>Kaiser M. I., Morrow K. H. (2024):</b> On the Epistemic Roles of the Individualized Niche Concept in Ecology, Behavioral Biology, and Evolutionary Biology. <i>Philosophy of Science</i>, <a href="https://doi:10.1017/psa.2024.48">https://doi:10.1017/psa.2024.48</a></p> <p><b>Kaiser MI, Killin A, Abendroth A-K, et al. (2024):</b> Individualisation and Individualised Science Across Disciplinary Perspectives. <i>European Journal for Philosophy of Science</i> 14, 41. <a href="https://doi.org/10.1007/s13194-024-00602-8">https://doi.org/10.1007/s13194-024-00602-8</a></p> <p><b>Kaiser M. I., Gadau J., Kaiser S., et al. (2024):</b> Individualized social niches in animals: Theoretical clarifications and processes of niche change. <i>BioScience</i> 74: 146-158. <a href="https://doi.org/10.1093/biosci/biad122">https://doi.org/10.1093/biosci/biad122</a></p> <p>Malsch A. K. F., Killin A., <b>Kaiser M. I. (2024):</b> Health-Oriented Environmental Categories, Individual Health Environments, and the Concept of Environment in Public Health. <i>Health Care Analysis</i> <a href="https://doi.org/10.1007/s10728-023-00477-5">https://doi.org/10.1007/s10728-023-00477-5</a></p> <p>Trappes R., Nematipour B., <b>Kaiser M. I., et al. (2022):</b> How Individualized Niches Arise: Defining Mechanisms of Niche Construction, Niche Choice, and Niche Conformance, <i>BioScience</i> 72(6): 538-548, <a href="https://doi.org/10.1093/biosci/biac023">https://doi.org/10.1093/biosci/biac023</a></p> <p><b>Kaiser M. I., Müller C. (2021):</b> What Is an Animal Personality? <i>Biology &amp; Philosophy</i> 36(1), <a href="https://doi.org/10.1007/s10539-020-09776-w">https://doi.org/10.1007/s10539-020-09776-w</a>.</p>

**Kaiser M. I., Trappes R. (2021):** Broadening the Problem Agenda of Biological Individuality: Individual Differences, Uniqueness, and Temporality. *Biology & Philosophy* 36(2), <https://doi.org/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.

**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.

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

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

**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

**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.

**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.): *Routledge Handbook of Causality and Causal Methods*. Routledge.

**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.
- 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.): *Probabilities, Laws, and Structures. The Philosophy of Science in a European Perspective*, Vol. 3. Heidelberg: Springer, 255-272.

	<p><b>Kaiser M. I. (2010):</b> 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., <b>Kaiser M. I.</b>, 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><b>Kaiser M. I.</b>, 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., <b>Kaiser M. I.</b>, 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>
<b>Preprints</b>	<p>Krüger O., Caspers B., Chakarov N., Elliott-Graves A., <b>Kaiser M. I.</b>, 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>
<b>Book Reviews &amp; Conference Reports</b>	<p><b>Kaiser M. I. (2019):</b> Scott Lidgard; Lynn K. Nyhart, eds. Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives, in: <i>Isis</i> 110: 146-147.</p> <p><b>Kaiser M. I. (2015):</b> Philosophy of Microbiology, in: <i>International Studies in the Philosophy of Science</i> 29: 224-228.</p> <p><b>Kaiser M. I. (2014):</b> Causality in the Biological Sciences, 17 January, in: <i>The Reasoner</i> 8(3): 28-29.</p>
<b>Dissertation</b>	<p><b>Kaiser M. I. (2012):</b> "An Ontic Account of Explanatory Reduction in Biology"; PhD thesis, University of Cologne (published online via KUPS; <a href="http://kups.ub.uni-koeln.de/6021/">http://kups.ub.uni-koeln.de/6021/</a>).</p> <p>All papers are available on my website (<a href="http://marie-kaiser.de/">http://marie-kaiser.de/</a>).</p>

## List of Courses Taught

If not indicated otherwise, the course language was German.

### Bielefeld University

<b>Summer term 2024</b>	<p>Philosophy of the Life Sciences (PhilLiSci) Colloquium (in English) Object Disciplines &amp; Colloquium Science Studies (in English)</p>
<b>Winter term 2023/24</b>	<p>Introduction to Science Studies (in English) I<sup>2</sup>SoS Colloquium (in English/German) PhilLiSci Meetings (in English)</p>
<b>Summer term 2023</b>	<p>I<sup>2</sup>SoS Colloquium (in English/German) PhilBio Team Meeting (in English)</p>
<b>Winter term 2022/23</b>	<p>Introduction to Science Studies (in English) PhilBio Team Meeting (in English)</p>
<b>Summer term 2022</b>	<p>I<sup>2</sup>SoS Colloquium (in English/German)</p>



	PhilBio Team Meeting (in English)
<b>Winter term 2021/22</b>	Introduction to Science Studies (in English) PhilBio Team Meeting (in English)
<b>Summer term 2021</b>	PhilBio Team Meeting (in English)
<b>Winter term 2020/21</b>	Colloquium Practical and Theoretical Philosophy PhilBio Team Meeting (in English)
<b>Summer term 2020</b>	PhilBio Team Meeting (in English)
<b>Winter term 2019/20</b>	Transformative Experiences PhilBio Team Meeting (in English)
<b>Summer term 2019</b>	Colloquium Practical and Theoretical Philosophy Object Disciplines & Colloquium Science Studies (in English) I <sup>2</sup> SoS Colloquium (in English/German)
<b>Winter term 2018/19</b>	Science and Ethics I <sup>2</sup> SoS Colloquium (in English/German)
<b>Summer term 2018</b>	Colloquium Science Studies (in English) I <sup>2</sup> SoS Colloquium (in English/German)
<b>Winter term 2017/18</b>	Classical Texts in Epistemology Colloquium Practical and Theoretical Philosophy
<b>Summer term 2017</b>	Philosophical Writing: Explanation and Understanding The Boundaries of Science
<b>Winter term 2016/17</b>	Do Electrons and Genes Really Exist? The Debate about Scientific Realism Philosophy of Biology
	<a href="#">University of Duesseldorf</a>
<b>Summer term 2015</b>	Metaphysics of Science
	<a href="#">University of Cologne</a>
<b>Summer term 2015</b>	Introduction to Metaphysics
<b>Winter term 2013/14</b>	Descartes' Meditations
	<a href="#">University of Lausanne</a>
<b>Summer term 2013</b>	Philosophy of the Life Sciences (in English)
	<a href="#">University of Geneva</a>
<b>Summer term 2013</b>	Realism, Representation, and Structuralism (in English, with M. Weber) Biological Interest Group (in English, with M. Weber)
<b>Winter term 2012/13</b>	Biological Interest Group (in English, with M. Weber)
	<a href="#">University of Cologne</a>
<b>Winter term 2011/12</b>	Philosophy of Biology
	<a href="#">University of Muenster</a>
<b>Summer term 2011</b>	The Philosophy Philip Kitcher's (with A. Seide)



<b>Summer term 2010</b>	How Scientists Explain the World
<b>Winter term 2009/10</b>	Why it is so Hard to Be a Reductionist (with A. Hüttemann)
<b>Summer term 2009</b>	The Mechanistic Philosophy from the Beginning to Modern Day Evolution under Discussion
<b>Winter term 2008/09</b>	Introduction to Philosophy of Science What Characterizes Science?
<b>Summer term 2008</b>	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
<b>Winter term 2007/08</b>	Introduction to Philosophy of Biology Problems in Medical Ethics (with C. Runtenberg)
<b>Summer term 2007</b>	Theoryladenness of Observation

Bielefeld, November 26th, 2024

