
CLAUS BEISBART

CURRICULUM VITAE

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Institute of Philosophy
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1. Personal Details

Date of Birth

Place of Birth Bayreuth (Germany)

2. Degrees

- 2012 Habilitation in Philosophy (TU Dortmund)
Title of the Habilitation Thesis: “A Transformation of Normal Science. Computer Simulations from a Philosophical Perspective”
- 2004 Ph.D. in Philosophy (Ludwig Maximilian University of Munich = LMU Munich, summa cum laude)
Supervisor: Prof. Dr. W. Vossenkuhl
Title of the Dissertation: “Handlungen begründen. Zur metaethischen Realismus-Problematik” (“Reasons for Action”, in German)
- 2001 Ph.D. in Physics (LMU Munich, magna cum laude)
Supervisor: Dr. T. Buchert
Title of the Dissertation: “Measuring Cosmic Structure. Minkowski Valuations and Mark Correlations for Cosmological Morphometry”
- 1997 Diploma in Physics (Minors: Mathematics, LMU Munich, with honors)
- 1990 High School Diploma (“Abitur”), Gymnasium Christian Ernestinum, Bayreuth (1.0 meaning “very good”)

3. Education

LMU Munich: Philosophy, Physics, Mathematics

University of Tübingen: Philosophy, Physics

Gymnasium Christian Ernestinum, Bayreuth

4. Areas of Specialization/Areas of Competence

AOS: Philosophy of Science (in particular epistemology of models and simulations), Philosophy of Physics (space and time, cosmology, probabilities in physics), philosophical methodology (in particular reflective equilibrium), metaethics, ethics, Public/Social Choice Theory

AOC: Logic, Kant

5. Appointments

- 2012 – Professor for Philosophy of Science (Extraordinarius) at the Institute for Philosophy, University of Bern
- 2011 – 2012 replacing a full Professor at the Institute for Philosophy and Political Science, Technische Universität Dortmund
- 2008 – 2009 Visiting Fellow at the Center for Philosophy of Science, University of Pittsburgh
- 2005 – 2012 Postdoc (“wissenschaftlicher Mitarbeiter”, for a Habilitation thesis), Institute for Philosophy and Political Science, Technische Universität Dortmund (formerly: University of Dortmund)
- 2004 – 2005 Postdoctoral Fellow in the “Philosophy, Probability and Modeling” Research Group, University of Konstanz
- 2002 – 2004 Research associate, Department of Physics, LMU Munich
- 2001 Physics postdoc at Oxford University, Astrophysics Division/Nuclear and Astrophysics Laboratory
- 1997 – 2001 Research associate in the Research Union “Astro-particle physics”, LMU Munich

6. Publications

I. Publications in Philosophy

(a) Book

“Handeln begründen. Motivation, Rationalität, Normativität” (“Reasons for Action. Motivation, Rationality, Normativity”), Lit, Berlin 2007 (in German)

(b) Habilitation Thesis

“A Transformation of Normal Science. Computer Simulations from a Philosophical Perspective”, TU Dortmund 2011 (chapters of the thesis and additional work on the topic have been published as articles; a book publication of my work on this topic is in preparation)

(c) Edited books

1. Beisbart, C., Sauer, T. and Wüthrich, C. (eds.), Thinking about Space and Time: 100 Years of Applying and Interpreting General Relativity, Series Einstein Studies, in press, to appear 9/2020
2. Brun, G. and Beisbart, C. (eds.), Mit Philosophie die Welt verändern, Schwabe, Basel, in press, to appear 9/2020

3. Beisbart, C. and Saam, N. J. (eds.), *Computer Simulation Validation. Fundamental Concepts, Methodological Frameworks, and Philosophical Perspectives*, Springer, Cham 2019
 4. Beisbart, C. and Hartmann, S. (eds.), “Probabilities in Physics”, Oxford University Press, Oxford 2011
- (d) Edited journal *Journal for General Philosophy of Science* (co-edited with U. Krohs/Th. Reydon and H. Pulte; CB co-editor since 1/2015)
- (e) Papers in Journals with peer-review
1. “Virtual Realism – Really Realism or Only Virtually So? A Comment on D. J. Chalmers’s Petrus Hispanus Lectures”, accepted for *Disputatio*
 2. Is Transplanetary Sustainability a Good Idea? An Answer From the Perspective of Conceptual Engineering, *International Journal of Astrobiology* **18** (2019), pp. 468–476
 3. Are Computer Simulations Experiments? And If Not, How Are They Related to Each Other? *European Journal for Philosophy of Science* **8** (2018), pp. 171–204
 4. “A Humean Guide to Spielraum Probabilities”, *Journal for General Philosophy of Science* **47** (2016), pp. 189–216 (special issue ed. by J. Rosenthal and C. Seck)
 5. “Are We Sims? How Computer Simulations Represent and What this Means for the Simulation Argument”, *The Monist* **97/3** (2014, special issue ed. by P. Humphreys), pp. 399–417
 6. “Minimizing the Threat of a Positive Majority Deficit in Two-tier Voting Systems with Equipopulous Units”, *Public Choice* **154** (2013), pp. 75–94 (with L. Bovens, CB first author)
 7. “Why Monte Carlo Simulations are Inferences and not Experiments”, *International Studies in the Philosophy of Science* **26** (2012), pp. 403–422 (with J. D. Norton)
 8. “How Can Computer Simulations Produce New Knowledge?”, *European Journal for Philosophy of Science* **2** (2012), pp. 395–434
 9. “Measuring Voting Power for Dependent Voters through Causal Models”, *Synthese* (part: Knowledge, Rationality and Action) **179** (2011), pp. 35–56 (with L. Bovens)
 10. “Welfarist Evaluations of Decision Rules under Interstate Utility Dependencies”, *Social Choice and Welfare* **34** (2010), pp. 315–344 (with S. Hartmann; CB first author)
 11. “Groups Can Make a Difference: Voting Power Measures Extended”, *Theory and Decision* **69** (2010), pp. 469–488; an earlier version was published in the Discussion Paper Series of the CPNSS at the LSE (refereed working paper series)
 12. “Can we Justifiably Assume the Cosmological Principle in order to Break Model Underdetermination in Cosmology?”, *Journal for General Philosophy of Science* **40** (2009), pp. 175–205

13. “How to Fix Directions or Are Assignments of Vector Characteristics Attributions of Intrinsic Properties?”, *Dialectica* **63** (2009), pp. 503–524
 14. “Kant’s Characterization of Natural Ends”, *Kant Yearbook* **1** (2009), pp. 1–30
 15. “A Power Measure Analysis of Amendment 36 in Colorado”, *Public Choice* **124** (2008), pp. 231–46 (with L. Bovens; CB first author)
 16. “Welfarist Evaluations of Decision Rules for Boards of Representatives”, *Social Choice and Welfare* **29** (2007), pp. 581–608 (with L. Bovens; CB first author)
 17. “Factions in Rousseau’s ‘Du Contrat Social’ and Federal Representation”, *Analysis* **67** (2007), pp. 12–20 (with L. Bovens)
 18. “Privileged, Typical, or not even that? – Our Place in the World according to the Copernican and the Cosmological Principles”, *Journal for General Philosophy of Science* **37** (2006), pp. 225–256 (with T. Jung; CB first author)
 19. “A Utilitarian Assessment of Alternative Decision Rules in the Council of Ministers”, *European Union Politics* **6** (2005), pp. 395–418 (with L. Bovens and S. Hartmann; CB first author)
 20. “The Messy Mass? On the Concept of Mass in Special Relativity”, *Philosophia Naturalis* **41** (2004), pp. 1–52 (with T. Jung; CB first author)
- (f) Contributions to Books and Collections
1. “Can We Measure the Age of the Universe?” To appear in: E. Nicolaidis, M. Malpangotto and M. Morfouli (eds.), *Time Accuracy in Physics and Astronomy*, Cambridge Scholars Publishing, Cambridge
 2. “What Is Validation of Computer Simulations? Toward a Clarification of the Concept of Validation and of Related Notions”, in: Beisbart, C. and Saam, N. J. (eds.), *Computer Simulation Validation. Fundamental Concepts, Methodological Frameworks, and Philosophical Perspectives*, Springer, Cham 2019, pp. 35–67 (peer-reviewed)
 3. “Simulation Validation From a Bayesian Perspective”, in: Beisbart, C. and Saam, N. J. 2019, *ibid.*, pp. 173–201 (peer-reviewed)
 4. “What Is a Computer Simulation and What Does This Mean for Simulation Validation?”, in: Beisbart, C. and Saam, N. J. 2019, *ibid.*, pp. 901–923 (peer-reviewed)
 5. “Should Validation and Verification Be Separated Strictly?”, in: Beisbart, C. and Saam, N. J. 2019, *ibid.*, pp. 1005–1028 (peer-reviewed)
 6. “Introduction: Computer Simulation Validation”, in: Beisbart, C., and Saam, N. J. 2019, *ibid.*, pp. 1–31 (with N. J. Saam)
 7. “A Model-theoretic Analysis of Space-time Theories”, *Einstein Studies* (Volume “Towards a Theory of Space-time Theories”, edited by D. Lehmkühl, G. Schiemann and E. Scholz), Birkhäuser, Basel 2017, pp. 225–256 (peer-reviewed)
 8. “Advancing Knowledge through Computer Simulations? A Socratic Exercise”, in: Resch, M., Kaminski, A., and Gehring, P. (eds.), *The Science*

- and Art of Simulation I. Exploring – Understanding – Knowing, Springer, Cham 2017, pp. 153–174 (peer-reviewed)
9. “Faszination der Kosmologie” (“The Fascination of Cosmology”), in: Kirchhoff, Th. et al. (eds.), *Naturphilosophie. Ein Lehr- und Studienbuch*, Mohr Siebeck/utb, Tübingen 2017 pp. 323–331 (with B. Falkenburg) (peer-reviewed by editors)
 10. “What Is Life? And Why Is the Question Still Open?”, in: A. Losch (ed.), *What Is Life? On Earth and Beyond*, Cambridge University Press, Cambridge 2017, pp. 111–131 (peer-reviewed)
 11. Moving Boundaries? – Comments on the Relationship Between Philosophy and Cosmology, in: Chamcham, K., Silk, J., Barrow, J. D. and Saunders, S. (eds.), *Philosophy of Cosmology*, Cambridge: Cambridge University Press 2017, pp. 66–75
 12. “’Ich weiss, dass ich nicht weiss’? Über die Vermessung der menschlichen Erkenntnisgrenzen” (“’I Know not to Know’ – On the Limits of Human Knowledge and Their Identification”), in: Bloch, S. K., Durbach, M. and Rippl, G. (eds.), *Grenzen in den Wissenschaften*, Haupt, Bern 2017, pp. 11–40
 13. “What Is Understanding? An Overview of Recent Debates in Epistemology and Philosophy of Science”, in: Grimm, S., Baumberger, C. and Ammon, S. (eds.), *Explaining Understanding: New Perspectives from Epistemology and Philosophy of Science*, Routledge, New York 2017 (with C. Baumberger and G. Brun), pp. 1–346 (peer-reviewed by editor)
 14. “Azar y probabilidad” (“Chance and Probability”; in Spanish, translation by F. Soler-Gil), in: Arana, J. (ed.), *Guía Comares de Filosofía de la Naturaleza*, Granada: Editorial Comares 2016, pp. 91–111
 15. “Philosophy and Cosmology”, in: P. Humphreys (ed.), *Oxford Handbook in the Philosophy of Science*, Oxford University Press, Oxford 2016, pp. 817–835 (peer-reviewed by editor)
 16. “Naturalismus” (“Naturalism”), in: C. Horn and K. Gabriel (eds.), *Säkularität und Moderne (“Secularity and Modernism”)*, Freiburg and München 2016, pp. 121–160
 17. “Voting Power and Probability”, in: R. Fara, D. Leech and M. Salles (eds.), *Voting Power and Procedures. Essays in Honour of Dan Felsenthal and Moshé Machover*, Springer, Berlin etc. 2014, pp. 97–116 (peer-reviewed)
 18. “Good just isn’t Good Enough: Humean Chances and Boltzmannian Statistical Physics”, in: M.C. Galavotti et al. (eds.), *New Directions in the Philosophy of Science, The Philosophy of Science in a European Perspective 5*, Springer, Berlin etc. 2014, pp. 511–529, DOI 10.1007/978-3-319-04382-1_36
 19. “Können wir wissen, wie das Universum beschaffen ist? Echte und vermeintliche Erkenntnisprobleme der Kosmologie” (“Can We Know what the Universe is like? Real and Alleged Epistemological Difficulties of Phys-

- ical Cosmology”), in: M. Esfeld (ed.), *Philosophie der Physik*, Suhrkamp, Berlin 2012, pp. 179–193 (in German, peer-reviewed)
20. “Varieties of Goodness at Work: The Relationship between Business and Morality”, *Inquiry* **55** (2012, special issue “Good Economy”, ed. by R. Raatzsch and R. Geuss), pp. 405–430 (peer-reviewed by an editor)
 21. “Bayesian Decision Theory”, in: S. Roeser, R. Hillerbrand, M. Peterson und P. Sandin (eds.), *Handbook of Risk Theory*, Springer, Heidelberg 2011, pp. 375–404 (peer-reviewed by an editor)
 22. “Optimismus” (“Optimism”), in: S. Sellmaier and E. Mayr (eds.), *Normativität, Geltung und Verpflichtung. Festschrift for W. Vossenkuhl*, Kohlhammer, München 2011, pp. 174–200 (in German)
 23. “Are Computer Calculations Arguments?”, in: K. Mainzer (ed.): *Proceedings of ecap10: 8th European Conference on Philosophy and Computing*, Dr. Hut, München 2010, pp. 492–495
 24. “Probabilistic Modeling in Physics”, in: C. Beisbart and S. Hartmann (eds.), *Probabilities in Physics*, Oxford University Press, Oxford 2011, pp. 143–167 (peer-reviewed)
 25. “Introduction”, in: C. Beisbart and S. Hartmann (eds.), *Probabilities in Physics*, Oxford University Press, Oxford 2011, pp. 1–21 (with S. Hartmann)
 26. “Kants mathematische Antinomie (I): Anfang und räumliche Grenzen der Welt” (“Kant’s Mathematical Antinomy (I): The Beginning and the Spatial Limits of the World”), in: N. Fischer (ed.), *Kants Grundlegung einer kritischen Metaphysik*, Meiner, Hamburg 2010, pp. 243–263 (in German)
 27. “Computersimulationen in der Angewandten Politischen Philosophie – Ein Beispiel” (“Computer simulations in Applied Political Philosophy – An Example”), to appear in: C. F. Gethmann (ed.), *Lebenswelt und Wissenschaft*, Meiner, Hamburg 2009 (in German; with S. Hartmann; CB first author)
 28. “Praktische Gründe und moralische Prinzipien” (“Practical Reasons and Moral Principles”), in: H. Bohse and S. Walter (eds.), *Selected Papers Contributed to the Sections of GAP.6*, Mentis, Paderborn 2008, pp. 859–876 (in German)
 29. “How Should the Weights be Set in a Federal Assembly? A Welfarist Argument from Cartel Formation”, in: H. Bohse and S. Walter (eds.), *Selected Papers Contributed to the Sections of GAP.6*, Mentis, Paderborn 2008, pp. 711–723 (with L. Bovens; CB first author)
 30. “Jonathan Dancy”, in: J. Nida-Rümelin and E. Özmen (eds.), *Philosophie der Gegenwart in Einzeldarstellungen. Von Adorno bis v. Wright*, 3rd edition, Kröner, Stuttgart 2007, pp. 98–103 (in German)
 31. “Welfarism and the Assessment of Social Decision Rules”, *Proceedings of the “1st International Workshop on Computational Social Choice”*, Amsterdam, 6–8 December 2006, pp. 35–48 (peer reviewed paper; with S. Hartmann; CB first author)

32. “Wie man Handlungsoptionen finden kann. Oder: praktische Kreativität” (“How to find Options for Acting or Practical Creativity”), in: G. Abel (ed.), *Kreativität. Contributed Papers from the XXth Congress for Philosophy of the “Deutsche Gesellschaft für Philosophie”* (German Philosophical Association), TU Verlag, Berlin 2005, pp. 405–414 (in German)
33. “Lebenskunst – eine Herausforderung für die moderne Moralphilosophie?” (“Is the Rediscovery of the *ars vivendi* a Challenge to Modern Moral Philosophy?”), in: C. Sommerfeld-Lethen (ed.), *Lebenskunst und Moral. Gegensätze und konvergierende Ziele*, Berliner Wissenschafts-Verlag, Berlin 2004, pp. 101–130 (in German)
34. “Von der Mikrowelt zum Makrokosmos: Coarse-graining und statistische Physik” (“From Microphysics to the Macro-world: Coarse-Graining and Statistical Physics”), in: A. Bergs and S. Curdts (eds.), *Holismus und Individualismus in den Wissenschaften*, Peter Lang, Frankfurt am Main 2003, pp. 87–106 (in German)

(g) Comments

1. Do We Need an Ethics of Planetary Sustainability? *Global Sustainability* **2**, e22 (2019), pp. 1–3
2. (Trans-)planetary Sustainability Once More – A Reply to Losch, *International Journal of Astrobiology* **18** (2019), pp. 590–591
3. “Wie viele Äpfel sind wirklich im Kühlschrank?” (“How Many Apples are Really in the Fridge?”) *Philosophisches Jahrbuch* **123** (2016), pp. 458–464, reprinted in: Buchheim, T. (ed.), Gabriel, M., *Neutraler Realismus (Jahrbuch-Kontroversen 2)*, Alber, Freiburg and München 2016, pp. 223–229
4. “Wie viele Äpfel sind im Kühlschrank? Kommentar zu Markus Gabriel, ‘Neutraler Realismus’ ” (“How Many Apples are in the Fridge? Comment on Markus Gabriel, ‘Neutral Realism’ ”), *Philosophisches Jahrbuch* **122** (2015), p. 115–125, wiederabgedruckt in: Gabriel, M., *Neutraler Realismus*, herausgegeben von T. Buchheim (Jahrbuch-Kontroversen 2), Alber, Freiburg and München 2016, pp. 35–45
5. “Was ist ein Modell? Und was eine Begriffsklärung? Überlegungen zu B. Mahrs Modell des Modellseins” (“What Is a Model? And What Is a Clarification of a Concept?”), *Erwägen, Wissen, Ethik* **26/3** (2015), pp. 347–350

(h) Book Reviews

1. G. Schurz, *Philosophy of Science. A Unified Approach*, *Zeitschrift für philosophische Forschung* **69** (2015), pp. 413–416
2. M. Morrison, *Reconstructing Reality: Models, Mathematics, and Simulations*, *Notre Dame Philosophical Reviews* 2015.07.39 (2015)
3. G. Gramelsberger, *Computerexperimente. Zum Wandel der Wissenschaft im Zeitalter des Computers* (Computer experiments. On the Change of

- Science in the Age of Computers), *Journal for General Philosophy of Science* **42** (2011), pp. 185–188
4. P. Schaber (ed.), Normativity and Naturalism, *European Journal of Philosophy* **16** (2008), pp. 325–329
 5. M. Wille, Die Mathematik und das synthetische Apriori. Erkenntnistheoretische Untersuchungen über den Geltungsstatus mathematischer Axiome (Mathematics and the Synthetic A Priori. Epistemological Investigations into the Status of Mathematical Axioms), *Philosophia Mathematica* **16** (2008), pp. 130–132
 6. M. Adam, Theoriebeladenheit und Objektivität. Zur Rolle von Beobachtungen in den Naturwissenschaften (Theory-ladenness and Objectivity: On the Role of Observation in Science), *Journal for General Philosophy of Science* **38** (2007), pp. 193–200 (in German)
 7. J. Dancy, Ethics without Principles, *Philosophisches Jahrbuch* **113** (2006), pp. 482–485 (in German)
 8. R. Johns, A Theory of Physical Probability, *Philosophy in Review* **24/1** (2004), pp. 40–42
 9. U. Wessels, Die gute Samariterin (On the Supererogatory in Ethics), *Philosophischer Literaturanzeiger* **56**, 2003, pp. 240–245 (in German)

II. Publications for the broader public

- 1 “Ethik in die Maschinen!” (“Ethics into Machines!”), NZZ, 15.10.2019, pp. 37
- 2 “Ein Riesensprung – oder doch nur ein kleiner Schritt?” (“A Huge Leap – or Just a Small Step?”), UniPress 177, Universität Bern, Juni 2019, pp. 25–27
- 3 “Philosophy of Physics – What is it and Why is it Worthwhile to Study it?” SPG Mitteilungen 57 (2019), pp. 15–18
- 4 “Ontologie der Musik” (“Ontology of Music”), Blog unter philosophie.ch, 30.1.2019
- 5 “Was leistet die Computersimulation in der Physik? Erkenntnistheoretische Überlegungen zu einer neuen Methode” (“What Does Computer Simulation Achieve? Epistemological Considerations about a New Method”), Plus lucis 4/2018, pp. 36–42
- 6 “Gibt es die Wahrheit noch?” (“Does Truth Still Exist?”), Blog philosophie.ch, 28.08.2018
- 7 “Wahrheit macht den Unterschied” (“Truth Makes the Difference”), Blog philosophie.ch, 30.07.2018
- 8 “Hat die Wahrheit ein hässliches Gesicht?” (“Does Truth Have an Ugly Face?”), Blog philosophie.ch, 25.05.2018
- 9 “Das Wissen von heute ist der Irrtum von morgen – oder?” (“Today’s Knowledge is Tomorrow’s Error – Really?”), Blog philosophie.ch, reprinted in: Philosophie aktuell – Philosophisches Themendossier, Swiss Philosophical Preprint Series # 130, 30.04.2018, pp. 8–9

- 10 “Thinking about Space and Time: 100 Years of Applying and Interpreting General Relativity” (report about the conference), SPG Mitteilungen 54 (2018), pp. 30–33 (with T. Sauer and C. Wüthrich)
- 11 “Philosophische Expeditionen ins Unbekannte” (“Philosophical Trips into Uncharted Territory”), UniPress (Universität Bern) 170 (2017), 5–7
- 12 “Wann ist Mathematik schön?” (“When Is Mathematics Beautiful?”), Tagesanzeiger online, 28.7.2016
- 13 “Gibt es Leben ausserhalb der Erde? Und was hat das mit Philosophie zu tun?” (“Is There Extraterrestrial Life? And What Is the Relation to Philosophy?”) philosophie.ch, 2016
- 14 “Wie viel Experiment braucht die Physik? Realitätsbezug von Experiment, Gedankenexperiment und Computersimulation” (“How Much Experiment Does Physics Need? How Experiment, Thought Experiment and Computer Simulation Refer to Reality”), *Physik in unserer Zeit* **46** (2015), pp. 281–287
- 15 “Meine sieben Sachen” (“My Few Things”), Blog philosophie.ch, 2015
- 16 “‘Und sehe, daß wir nichts wissen können’? Grenzen des Wissens und ihre Vermessung” (‘And I See that We Cannot Know Anything’? Limits of Knowledge and Their Determination”), *panta rhei*, Verlag Hans Erni-Stiftung, Luzern 2014
- 17 “Wissen wir, was wir nicht wissen können?” (“Do We Know What We Don’t Know?”) *Horizonte – Das Schweizer Forschungsmagazin* **103** (2014), pp. 13–14
- 18 “Grosse Fragen: Einheit in der Erkenntnis” (“Huge Questions: Unification of Knowledge”), Tagesanzeiger online, 2013; Reprinted as: When Is Philosophy Science?, Was ist Philosophie?, Philosophisches Themendossier von philosophie.ch, 2013, pp. 26–27
- 19 “Probabilistic Modeling in Science and Philosophy” (report on conference), 11–12 October, *The Reasoner* **7/12** (2013), pp. 142
- 20 “Erläuterungen zu den Indifferenzkurven in Rawls’ ‘Eine Theorie der Gerechtigkeit’ ” (“Comments on the Indifference Curves in Rawls’s ‘A Theory of Justice’”), 2010 (with J. Schroth), <http://www.ethikseite.de/>

III. Selected Publications in Physics

(a) Dissertation

“Measuring Cosmic Structure. Minkowski Valuations and Mark Correlations for Cosmological Morphometry”, Electronic publication at the Library (LMU Munich) 2001

(b) Refereed Journal Papers

1. “Tensorial Minkowski Functionals and Anisotropy Measures for Planar Patterns”, *Journal of Microscopy* **238** (2009), pp. 57–74 (with G. E. Schröder-Turk, S. Kapfer, B. Breidenbach and K. Mecke)

2. “Extended Morphometric Analysis of Neuronal Cells with Minkowski Valuations”, *The European Physical Journal B* **52** (2006), pp. 531–546 (with M. S. Barbosa, H. Wagner and L. da F. Costa; CB first author)
3. “Morphological Fluctuations of Large-scale Structure: the PSCz Survey”, *Astronomy & Astrophysics* **373** (2001), pp. 1–11 (with M. Kerscher, K. Mecke, J. Schmalzing, T. Buchert and H. Wagner)
4. “The Morphological and Dynamical Evolution of Simulated Galaxy Clusters”, *Astronomy & Astrophysics* **379** (2001), pp. 412–425 (with R. Valdarnini and T. Buchert; CB first author)
5. “Morphometry of Spatial Patterns”, *Physica A* **293/3-4** (2001), pp. 592–604 (with T. Buchert and H. Wagner; CB first author)
6. “Luminosity- and Morphology-dependent Clustering of Galaxies”, *The Astrophysical Journal* **545** (2000), pp. 6–25 (with M. Kerscher; CB first author)

(c) Contributions to Books

1. “Mark correlations: Relating physical Properties to Spatial Distributions”, in: K. Mecke and D. Stoyan (eds.), *Morphology of Condensed Matter. Physics and Geometry of Spatial Complex Systems (LNP 600)*, J. Springer, Berlin 2002, pp. 358–390 (with M. Kerscher and K. Mecke; CB first author)
2. “Vector- and Tensor-valued Descriptors for Spatial Patterns”, in: K. Mecke and D. Stoyan (eds.), *Morphology of Condensed Matter. Physics and Geometry of Spatial Complex Systems (LNP 600)*, J. Springer, Berlin 2002, pp. 238–260 (with R. Dahlke, K. Mecke and H. Wagner; CB first author)

7. Teaching

I. Teaching in Philosophy

The courses were given in German and at the University of Bern, unless otherwise stated

Some courses are documented online under

<http://www.claus-beisbart.de/teaching>

Direct links to courses with online materials are provided in the list below.

1. Reflective Equilibrium, Seminar, fall 2019 (with G. Brun)
2. Philosophy of Science, lecture, fall 2019
3. Ethics and Philosophy for Biologists, lecture, fall 2019 (with H. Würbel)
4. Research Colloquium Philosophy of Science, HS 2019 (with V. Lam; in English)
5. Writing Philosophical Essays, fall 2019
6. Truth, seminar, spring 2019

7. Philosophical Issues in Modeling Climate Change, seminar, spring 2019 (with S. Brönnimann and V. Lam; in English)
8. Logic, mandatory lecture with exercises, spring 2019
9. Problems of Theoretical Philosophy, mandatory lecture for beginners, spring 2019
10. Religion and Science, seminar, fall 2018 (with J. Schlieter)
11. Possible, Actual, Necessary: Modalities and their Epistemology, seminar/proseminar, fall 2018
12. Ethics and Philosophy for Biologists, lecture, fall 2018 (with H. Würbel)
13. Research colloquium in theoretical philosophy, fall 2018
14. Writing Philosophical Essays, fall 2018
15. Knowledge, its Varieties and Sources. Ideas from Eastern and Western Philosophy, fall 2018 (with A. von Kügelgen)
16. Thinking Art – Thinking Following Art. Philosophy and Art in Dialogue, proseminar, fall 2017 (with M. Ruta)
17. Ethics and Philosophy for Biologists, lecture, fall 2016 (with H. Würbel)
18. Research colloquium in theoretical philosophy, fall 2017
19. Problems of Theoretical Philosophy, mandatory lecture for beginners, spring 2017
20. Logic, mandatory lecture with exercises, spring 2017
21. Dispositions, seminar for master students, spring 2017 (with R. King)
22. Philosophical Issues in Understanding Global Change, Blockseminar, University of Bern und ETH Zürich, spring 2017 (with C. Baumberger, S. Brönnimann, E. Fischer and G. Hirsch Hadorn; in English)
23. Philosophy of Economics, Seminar, fall 2016 (with R. Winkler; in English)
24. From Logic to Formal Epistemology, seminar for advanced bachelor students, fall 2016
25. Research Colloquium in Philosophy of Science, fall 2016
26. Ethics and Philosophy for Biologists, lecture, fall 2016 (with H. Würbel)
27. Logic, mandatory lecture with exercises, spring 2016
28. Values in Science, master seminar, spring 2016 (with G. Brun)
29. What Is Life?, Seminar, spring 2016 (with A. Loettgers)
30. Philosophical Issues in Understanding Global Change, Blockseminar, University of Bern und ETH Zürich, spring 2016 (with C. Baumberger, S. Brönnimann, G. Hirsch Hadorn and R. Knutti; in English)
31. Philosophy of Science, lecture, fall 2015
32. Philosophy Colloquium Bern, fall 2015

33. Why Philosophy? Answers from Eastern and Western Philosophy, seminar for master students, fall 2015 (with A. v. Kügelgen)
34. Writing Philosophical Essays, fall 2015
35. Ethics and Philosophy for Biologists, lecture, fall 2015 (with H. Würbel)
36. Philosophical Issues in Understanding Global Change, Blockseminar, University of Bern und ETH Zürich, spring 2015 (with C. Baumberger, S. Brönnimann, G. Hirsch Hadorn und R. Knutti; in English)
37. Limits of Knowledge, proseminar, spring 2015
38. Philosophy of Space and Time, seminar for master students, spring 2015
39. Research Colloquium in Theoretical Philosophy, spring 2015
40. Induction and the Problem of Induction, proseminar, fall 2014
41. Ethics and Philosophy for Biologists, lecture, fall 2014 (with H. Würbel)
42. Writing Philosophical Essays, fall 2014
43. Philosophy of Economics, Seminar, fall 2014 (in English)
44. History and Philosophy of Cosmology (with T. Sauer und A. Verdun), fall 2014
45. Research Colloquium in Philosophy of Science, fall 2014
46. What Should I Believe? Theories of Epistemic Justification, seminar for master students, spring 2014
47. Philosophical Issues in Understanding Global Change, seminar for master students, University of Bern und ETH Zurich, spring 2014 (with C. Baumberger, S. Brönnimann, G. Hirsch Hadorn und R. Knutti)
48. Philosophy of Science, lecture, spring 2014
49. Logic, mandatory lecture with exercises, spring 2014
50. Research Colloquium in Philosophy of Science, spring 2014 (with R. Scholl)
51. Philosophy of the Humanities, proseminar (i.e., seminar for undergraduates), fall 2013
52. Political Contractarianism, proseminar, fall 2013
53. From Rational Credence to Chance and Back: Philosophy of Probability, seminar for master students, fall 2013
54. Writing Philosophical Essays, fall 2013
55. Research Colloquium in Philosophy of Science, fall 2013 (with R. Scholl)
56. Philosophy of Science, spring 2013
57. Realism, colloquium for master students, spring 2013 (with S. Boshammer)
58. Explanation and Causality, proseminar, spring 2013
59. Writing Philosophical Essays, spring 2013
60. Research Colloquium in Philosophy of Science, spring 2013 (with R. Scholl)

61. Classic Works in the History of Science, lecture, fall 2012
62. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, proseminar, fall 2012
63. Philosophy of Social Science, seminar, fall 2012
64. Research Colloquium in Philosophy of Science, fall 2012 (with R. Scholl)
65. Introduction to Practical Philosophy II, mandatory lecture for first-year students, TU Dortmund, summer 2012
66. J. Rawls, *A Theory of Justice*, seminar for undergraduates and graduates, TU Dortmund, summer 2012
67. Political Contractarianism (Hobbes, Locke, Rousseau), seminar for undergraduates and graduates, TU Dortmund, summer 2012
68. Philosophical Writing, seminar for first-year students, TU Dortmund, summer 2012
69. Research Seminar in Practical Philosophy for graduates and Ph.D. students, TU Dortmund, summer 2012 (with M. Herrmann; focus on A. Honneth, *Das Recht der Freiheit*, Frankfurt am Main, 2011)
70. Introduction to Practical Philosophy I, mandatory lecture for first-year students, TU Dortmund, winter 2011/12
71. Karl R. Popper, seminar for undergraduates and graduates, TU Dortmund, winter 2011/12
72. Interpreting Basic Texts from Theoretical Philosophy: Human Knowledge, seminar for first-year students, TU Dortmund, winter 2011/12
73. Philosophical Writing, seminar for first-year students, TU Dortmund, winter 2011/12
74. Research Seminar in Practical Philosophy for graduates and Ph.D. students, TU Dortmund, winter 2011/12 (with M. Herrmann)
75. Introduction to Practical Philosophy, mandatory lecture for first-year students, TU Dortmund, summer 2011
76. Aristotle's *Nicomachean Ethics*, seminar for undergraduates, TU Dortmund, summer 2011
77. Fichte, *Wissenschaftslehre*, seminar for undergraduates, TU Dortmund, summer 2011
78. Research Seminar in Practical Philosophy for graduates and Ph.D. students, TU Dortmund, summer 2011 (with M. Herrmann)
79. Plato, *Early Dialogues*, seminar for undergraduates, TU Dortmund, winter 2010/11
80. Aristotle's *Metaphysics* and Present-day Metaphysics, seminar for advanced undergraduates (4 hours per week), TU Dortmund, winter 2010/11
81. Logic, mandatory lecture for first-year students with exercises, TU Dortmund, summer 2010

82. Topics from the Philosophy of Science, seminar for advanced undergraduates, TU Dortmund, summer 2010
83. Welfare and Standard of Living as Guides to Action, seminar for third-year undergraduates and graduates, TU Dortmund, winter 2009/10 (with M. Herrmann)
84. From Metaethics to Moral Philosophy: R. M. Hare, seminar for first/second-year students, TU Dortmund, winter 2009/10
85. Introduction to Practical Philosophy, mandatory lecture for first-year students, TU Dortmund, summer 2009
86. Explanation and Causation, seminar for advanced undergraduate students and master students, TU Dortmund, summer 2009
87. Philosophy of Science, seminar for first- and second-year students, TU Dortmund, summer 2008
88. Kant, Critique of Pure Reason. Seminar for first- and second-year students, TU Dortmund, summer 2008
89. Interpreting Basic Texts from Theoretical Philosophy, seminar for first-year students, TU Dortmund, winter 2007/08
90. Collective Rationality, Collective Agency, Collective Responsibility, seminar for advanced undergraduate students, TU Dortmund, winter 2007/08 (with M. Herrmann)
91. Kant, Critique of the Power of Judgment, seminar for master students and advanced undergraduate students, University of Iceland, Reykjavík, Iceland, fall 2007, in English
92. Philosophy of Science, seminar for first- and second-year students, University of Dortmund, summer 2007 (now: TU Dortmund)
93. Kant, Critique of the Power of Judgment, seminar for advanced undergraduate students, University of Dortmund, summer 2007
94. Interpreting Basic Texts from Theoretical Philosophy, seminar for first-year students, University of Dortmund, winter 2006/07
95. Utilitarianism and its Critics, seminar for advanced undergraduate students, University of Dortmund, winter 2006/07
96. From Descartes to Kant: Metaphysics, Epistemology and Ethics in 17th and 18th Century Philosophy, seminar for first- and second-year students, University of Dortmund, summer 2006
97. Scientific Realism, seminar for advanced undergraduate students, University of Dortmund, summer 2006
98. Introduction to Epistemology, seminar for first-year students, University of Dortmund, winter 2005/06
99. John Locke, An Essay Concerning Human Understanding, seminar for first-year students, University of Dortmund, winter 2005/06

100. Introduction to Ancient Ethics. Seminar for first-year students, University of Konstanz, summer 2005
101. Introduction to Kant's Ethics. Seminar for first-year students, University of Konstanz, winter 2004/05
102. Introduction to Methods in Philosophy. Seminar for first-year students, LMU Munich, winter 2000/01 (with V. Weber)

II. Teaching in Physics (Overview)

- (1) Tutorials in Mechanics, Electrodynamics, Quantum Mechanics, Quantum Information Theory, LMU Munich, 1997–2004
- (2) Mathematical Methods for Physicists, Tutorials for Brasenose College, Oxford, Michaelmas 2001, in English

8. Funds, Grants, Rewards, Scholarships

- 2018 grant for the 1st CSH Science and Religion Forum “Limits of Science – Opportunities for Religion?”, Bern, 7.-8.11.2019 (with J. Lampe; CHF 7.700)
- 2018 grant for the project “How Far Does Reflective Equilibrium Take Us? Tracing the Power of a Philosophical Method” by the Swiss National Science Foundation and the German Research Foundation (3 PhDs, 1 ca. 35% senior researcher; with G. Betz; additional PI and senior researcher: G. Brun)
- 2018 grant for the conference “Science and Its Limits: Contemporary and Kantian Perspectives”, TU Dortmund, 11.-12.4.2019 by the German Research Foundation (ca. 10.000 Euro, with K. Engelhard)
- 2018 grant for the symposium “8th Lauener Symposium on Themes from Bas van Fraassen” by the Swiss National Science Foundation (CHF 9.000; in cooperation with the Lauener Foundation)
- 2017 Grant for the conference “Thinking about Space and Time: 100 Years of Applying and Interpreting General Relativity” from the Swiss National Science Foundation (CHF 7.200) (with C. Wüthrich and T. Sauer)
- 2017 Grant for the workshop “Why be Cautious? On the Justification of Precautionary Principles” from the Swiss National Science Foundation (CHF 4.000) (with G. Brun)
- 2016 Grant for the workshop “Understanding Life: New Perspectives from Philosophy and Biology” from the Swiss National Science Foundation (CHF 6.900) (with A. Loettgers)
- 2014 Grant for the conference “How to Build Trust in Computer Simulations: Towards a General Epistemology of Validation” from the VolkswagenStiftung (ca. 28.000 Euro) (with N. J. Saam)

- 2014 Grants for the workshop “Towards an Epistemology of Understanding. Rethinking Justification” from the Swiss National Science Foundation, the Burggemeinde Bern, the Swiss Society for Logic and Philosophy of Science and the Gesellschaft für analytische Philosophie (ca. CHF 15.000; with S. Ammon, C. Baumberger and G. Brun)
- 2013 Grants for the research project “Das Überlegungsgleichgewicht – Neukonzeption und Anwendung” (“Reflective Equilibrium – Re-conception and Application”) from the Swiss National Science Foundation (more than CHF 500.000; Postdoc: G. Brun)
- 2013 Grants for the conference “Probabilistic Modeling in Science and Philosophy” from the Swiss National Science Foundation and the Oeschger Centre for Climate Change Research (ca. CHF 10.000)
- 2009 Associate Member of the Global Young Faculty (project funded by the Mercator Foundation; organized by the Kulturwissenschaftliches Institut Essen)
- 2008 Postdoctoral Fellowship from the DAAD (German Academic Exchange Service) for a stay at the Center for Philosophy of Science at the University of Pittsburgh
- 2008 Fellowship at the Center for Philosophy of Science at the University of Pittsburgh for the academic year 2008–09
- 2005 Funds for the summer school “Philosophy, Probability and Physics” and the conference “Being Bayesian in a Quantum World” from the VolkswagenStiftung (67,000 Euros, with S. Hartmann, V. Palge and C. Fuchs)
- 2005 Funds for a research project “Paternalismus als Grundlagenproblem der Moralphilosophie und des Rechts am Beispiel medizinethischer Fragestellungen” (“Paternalism in Medical Ethics and Law”) from the DFG (German Research Foundation; money for two postdoc positions for two years, each; with U. Schroth, W. Vossenkuhl and B. Fateh-Moghadam)
- 2005 Invited participant at the 2nd German-American Frontiers of Humanities Symposium (Alexander-von-Humboldt Foundation), Hamburg
- 2004–05 Postdoctoral Fellowship from the Alexander-von-Humboldt Foundation in the “Philosophy, Probability and Modeling” Research Group, University of Konstanz
- 2002 Grants for a Ph.D. in philosophy from LMU Munich
- 1991–97 Scholarship from the German Scholarship Foundation
- 1991–97 Bavarian State Scholarship
- 1990 First prize “Ancient Languages” from the Elisabeth J. Saal Foundation
- 1990 Third prize “Bundeswettbewerb Mathematik” (National award in mathematics for high school students)

9. Research projects directed

- 2020– How Far Does Reflective Equilibrium Take Us? Investigating the Power of a Philosophical Method (co-directed with G. Betz, KIT Karlsruhe and G. Brun, University of Bern; funded by the Swiss National Science Foundation and the German Research Foundation; project members: A. Freivogel, R. Lohse and S. Cacaen)
- 2019–20 Understanding Deep Learning (researcher: T. Rätz; funded by the cogito foundation)
- 2016–19 Ontology of Musical Works and Analysis of Musical Practice (project members: A. Colas, M. Ruta; collaborator: T. Gartmann; funded by the Swiss National Science Foundation, taken over from D. Jacquette)
- 2014–18 Das Überlegungsgleichgewicht – Neukonzeption und Anwendung (project members: G. Brun and T. Rechnitzer; funded by the Swiss National Science Foundation)
- 2014–17 Die Entstehung des Drehimpulssatzes (How the conservation of angular momentum was discovered; researcher: A. Verdun; funded by the cogito foundation)
- 2014–17 Searching Life Out There – Toward an Epistemology of Exobiology and of Related Fields (postdoc: A. Loettgers; part of the project “Life Beyond Our Planet”, Center for Space and Habitability, University of Bern)

10. Professional Activities

- 2020– President of krino – Philosophical Society Bern
- 2019– President for the Committee for the Structure of the Institute of Art History, University of Bern
- 2019– Coordinator “University of High School Students”, University of Bern
- 2019– Co-editor of the book series “Philosophia – Eine Open Access Buchreihe zur Philosophie”, Schwabe Verlag (with C. Halbig, C. Maigné and S. Zurbuchen)
- 2019 Member in the Nomination Committee of the EPSA (European Philosophy of Science Association)
- 2019– Board of the Swiss Physical Society, responsible for History and Philosophy of Physics
- 2019 Organization of the 1st CSH Science and Religion Forum “Limits of Science – Opportunities for Religion?”, Bern, 7.-8.11.2019 (with J. Lampe, K. Heng and I. Noth)
- 2019 Organisation of the conference “Science and Its Limits: Contemporary and Kantian Perspectives”, TU Dortmund, 11.-12.4.2019 (with K. Engelhard)

- 2018–19 Member of the Structure Committee and Search Committee for the Institute of Theatre Studies, University of Bern
- 2019– Member of the Collegium generale, University of Bern
- 2018– Managing Director of the Institute of Philosophy
- 2018– Member of the Evaluation Committee for the career program “Ambizione”, Swiss National Science Foundation
- 2017–19 Member of the Structure and Search Committee for a professorship in Digital Humanities, University of Bern
- 2016– Reviewer for the Schweizerische Studienstiftung (Swiss Study Foundation)
- 2017 Member of the Sounding Board for the “Night of Research” 2017, University of Bern
- 2016– Vicedean for Finances and quality Management
- 2016 Member in the search committee for a professorship in practical philosophy, Faculty of Humanities, University of Bern
- 2016 Member in the search committee for the Hans-Sigrist-Prize 2016, University of Bern
- 2016 Co-organizer of the workshop “Understanding Life: New Perspectives from Philosophy and Biology”, University of Bern, 26.–27.5.2016 (with A. Loettgers)
- 2015– Expert for Grading A-levels, Kanton Bern (so far 2015, 2016 and 2017)
- 2015–16 Member of the Executive Committee, Walter Benjamin Kolleg, University of Bern
- 2015 Co-organizer of the 3rd International Summer School in Philosophy of Physics: The Ontology of Physics, Homepage: <https://sites.google.com/site/isspp2015/> (with D. Dürr, M. Esfeld, S. Hartmann and C. Wüthrich)
- 2015 Co-organizer of the conference “How to Build Trust in Computer Simulations: Towards a General Epistemology of Validation”, Hannover, 9.–11.7.2015 (with N. J. Saam)
- 2015– Mitglied im Vorstand der krino/Philosophische Gesellschaft Bern
- 2014– Member of the Programme Committees for the conferences *Gesellschaft für Wissenschaftsphilosophie* (GWP.13), *The European Conference of Analytic Philosophy 2014 (ECAP8)*, *The European Conference of Analytic Philosophy 2017 (ECAP9)*, Conference of the *European Philosophy of Science Association* (EPSA17)

- 2014 Co-organizer of the 2nd International Summer School in Philosophy of Physics: Probabilities in Physics, 21–26/7/2014, Saig (with D. Dürr, M. Esfeld, S. Hartmann and C. Wüthrich)
- 2014– Member of the Committee for the Structure of the Faculty of Humanities, University of Bern
- 2014 Organizer of the Workshop ‘Causality and Causal Reasoning in Physics. Discussions with Mathias Frisch’, University of Bern, 20–21/6/2014
- 2014 Co-Organizer of the Workshop “Towards an Epistemology of Understanding. Rethinking Justification”, University of Bern, 21–22/3/2014 (with S. Ammon, C. Baumberger und G. Brun)
- 2013–15 President of the Committee for supporting young academics, also directing the Doctoral Board of the Faculty of Humanities of the University of Bern
- 2013–14 Member of two selection committees for Fellows, Zukunftskolleg, Universität Konstanz
- 2013–14 Member of the Program Committee for the Collegium Generale in spring term 2015, University of Bern
- 2013 Co-Organizer of the Conference “Probabilistic Modeling in Science and Philosophy”, University of Bern, 11–12/10/2013 (with C. Raible)
- 2012–16 Q-coach (responsible for quality management), Institute for Philosophy, University of Bern
- 2012 Member of the program committee for “Models and Decisions”, Munich-Sidney-Tilburg Workshop 2013
- 2010– Reviewer for *European Research Council*; *Schweizerischen Nationalfonds*; *Österreichische Akademie der Wissenschaften*; *Deutsche Forschungsgemeinschaft*; *Alexander von Humboldt-Stiftung*; *Fonds Wetenschappelijk Onderzoek – Vlaanderen*, *FWO* (Forschungsstiftung Flanders); *Agence Nationale de la Recherche*; *Nederlandse Organisatie voor Wetenschappelijk Onderzoek* (Niederländische Wissenschaftsorganisation); *Agencia Nacional de Evaluación y Prospectiva*; *Marsden Fund*
- 2008–12 Responsible for the management of examinations (“Prüfungsmanager”), Institute for Philosophy and Political Science, TU Dortmund
- 2008–12 Elected member of the central decision board of Faculty 14 at TU Dortmund (“Fakultätsrat”), re-elected 2010
- 2007–12 Authorized Representative for Teaching Capacities (“Kapazitätsbeauftragter”), Institute for Philosophy and Political Science, TU Dortmund

- 2007 Participation at a course about teaching students writing essays etc. (“Schreibwerkstatt für Lehrende: ‘Wenn Studierende schreiben ...’ ”, Centre for Higher Education and Research in Faculty Development, University of Dortmund)
- 2006–12 Editorial Manager for “Physics and Philosophy” (open access journal)
- 2006–11 Speaker of the sub-professor-level research and teaching appointees (“Mittelbausprecher”), Faculty 14, TU Dortmund
- 2005 Organizer of the summer school “Philosophy, Probability and Physics”, University of Konstanz, 7 – 13 August 2005 (with S. Hartmann)
- 2004– Referee for *British Journal for Philosophy of Science*; *Philosophy of Science*; *European Journal for Philosophy of Science*; *Erkenntnis*; *Synthese*; *Analysis*; *Journal for General Philosophy of Science*; *Studies in Philosophy and History of Science*; *Studies in Philosophy and History of Modern Physics*; *The Philosophical Quarterly*; *Theoria*; *Philosophy & Technology*; *Techné*; *Phenomenology and the Cognitive Sciences*; *Disputatio*; *European Journal of Analytic Philosophy*; *Logical Analysis and History of Philosophy*; *Organon F*; *Diametros*; *Philosophy, Theology and the Sciences*; *Zentralblatt für Arbeitsmedizin*; *Perspektiven der Philosophie*; *Public Choice*; *Social Choice and Welfare*; *Economics and Philosophy*; *Homo Oeconomicus*; *Journal of Economic Methodology*; *European Union Politics*; *Politics, Philosophy and Economics*; *Review of Economic Design*; *Foundations of Physics*; *Physics and Philosophy*; *Monthly Notes of the Royal Astronomical Society*; *Stanford Encyclopedia of Philosophy*; *Oxford University Press und de Gruyter*; *World Scientific Publishing*
- 2004–05 Webmaster of the PPM Group
- 2004– Member of a selection committee (“Auswahlkommission”) for the German Scholarship Foundation (2004, 2010, 2011, 2012, 2018)
- 1997–99 Editor of the abstract collection from the Research Union “Astro-particle physics”

11. Supervision of theses

So far

- 15 bachelor theses
- 16 master theses
- 3 PhD theses
- 4 habilitation theses

Ongoing:

- 1 bachelor thesis
- 1 master thesis

- 2 PhD theses (first supervisor)
- 2 PhD theses (second supervisor)

External expert:

- PhD thesis by C. Falk (Université de Genève), 2020;
- habilitation thesis by C. Imbert (Université Jean Moulin, Lyon), 2019;
- PhD thesis by L. Hinn (ETH Zürich), 2019;
- PhD thesis by T. Rätz (Université de Lausanne), 2013.

12. Talks (now – December 2004; not including talks for a broader audience)

- “Can Reflective Equilibrium Be Put to Work?”, Research Colloquium “Aktuelle Forschungsthemen der Praktischen Philosophie”, LMU München, 28.1.2020 (with G. Brun; *invited*)
- “Opacity Thought Through. On the Intransparency of Computer-Based Methods in the Sciences”, Philosophy Colloquium, ETH Zürich, 18.12.2019 (*invited*)
- “Too Beautiful to Be True? – Physical Theories and their Virtues”, AEC Seminar, Albert Einstein Center, University of Bern, 11.12.2019 (*invited*)
- “Opacity Thought Through”, online talk for the colloquium of the research project “The Epistemology of the Large Hadron Collider”, 22.11.2019 (*invited*)
- “Philosophical Ideas of Water”, Conference “Acqua Roma”, Istituto Svizzero di Roma, 16.10.2019 (*invited*)
- “Kant’s Cosmological Conundrum. The Antinomy of Pure Reason in the Light of Problems for Present-Day Cosmology”, Workshop “Kant on the Foundations of Mathematics and Cosmology. What Legacy for German Idealism and Beyond?”, Autonomous University of Barcelona, 17.9.2019 (*invited*)
- “On Right Solutions and Right Equations. The Relationship Between Verification and Validation of Climate Simulations”, Symposium “Foundational Issues in Climate Science and Climate Modelling”, EPSA 2019, Université de Genève, 13.9.2019
- “What Can Kant’s (first) Antinomy of Pure Reason Teach Us about the Limits of Science? Reflections on Present-Day Cosmology and Naturalism”, conference “Science and Its Limits: Contemporary and Kantian Perspectives”, TU Dortmund, 12.4.2019
- “Is Model Building in Cosmology Special?”, spring meeting of the German Physical Society, TU München, 20.3.2019 (*invited*)
- “Complexity in Multilingualism (Research)”, Roundtable “What’s Special About Multilingualism?”, Université de Fribourg, 12.2.2019

- “Forschung an digitalen Methoden am Beispiel der Computersimulation”, workshop “Bedeutung und Struktur der Forschung an digitalen Methoden und Verfahren”, Geschäftsstelle der Deutschen Forschungsgemeinschaft, Bonn, 6.11.2018 (*invited*)
- “How Coherent Are Two Approaches Regarding Coherence With Each Other?”, GAP.10, Universität zu Köln, 20.9.2018 (with G. Betz and G. Brun; presented by G. Betz)
- “Neither Experimental nor Theoretical? Computer Simulations and the Dichotomy Between Experimental and Theoretical Physics”, annual meeting of the Swiss Physical Society 2018, EPFL Lausanne, 31.8.2018 (*invited*)
- “Hunting the Higgs with Computers: A Causal and a Logical Analysis”, Munich Center for Mathematical Philosophy, Ludwig-Maximilians-Universität München, 11.7.2018
- “Zwischen Ausdifferenzierung und Vereinheitlichung – Mögliche Auswirkungen des digitalen Wandels auf das Fächergefüge”, workshop “Ausdifferenzierung der Fächer im Zeichen der Digitalisierung”, Geschäftsstelle der Deutschen Forschungsgemeinschaft, Bonn, 28.6.2018 (*invited*)
- “Are Computer Simulations Experiments? And If Not, How Are They Related to Each Other?”, Höchstleistungsrechenzentrum Stuttgart, 20.6.2018 (*invited*)
- “A Transformation of Science and Technology? The Method of Computer Simulation and Its Impact”, Utzon(x) Symposium on Tectonics Philosophy Technology, Utzon Center, Aalborg, 26.4.2018 (*invited*)
- “Reflective Equilibrium Fleshed Out”, Science & More Talks, University of Turin, 11.4.2018
- “Computer Simulation in Experimentation Versus Computer Simulation as Experiment”, conference “Models and Simulations 8”, University of South Carolina, 16.3.2018 (via skype)
- “Sustainability and Realism”, Workshop “Developing Planetary Sustainability”, University of Bern, 10.3.2018 (*invited*)
- “Überlegenes Überlegen? Was taugt das Überlegungsgleichgewicht?”, philosophy colloquium series, Universität Konstanz, 11.1.2018 (*invited*)
- “How Much Truth is in Virtual Reality? Assessing Virtual Realism”, colloquium series of the Institute of Philosophy, KIT Karlsruhe, 9.1.2018 (*invited*)
- “Modeling in the Context of Computer Simulation”, I²SoS colloquium, University of Bielefeld, 12.12.2017 (*invited*)
- “What Is Reflective Equilibrium? A Fresh Look Based Upon a Formal Model”, Fall Meeting of the Swiss Graduate Society for Logic and Philosophy of Science, University of Bern, 16.11.2017 (*invited*)

- “Auf die Balance kommt es an – das Überlegungsgleichgewicht neu konzipiert”, research colloquium in political communication, Institut für Kommunikations- und Medienwissenschaft, University of Bern, 12.10.2017 (*invited*)
- “Reflective Equilibrium Fleshed Out: A Formal Model Using the Theory of Dialectical Structures”, ECAP9: European Congress of Analytic Philosophy, LMU Munich, 26.8.2017 (with G. Betz and G. Brun)
- “Modeling Reflective Equilibrium as Belief Dynamics”, Workshop “Argumentation in Models of Opinion Dynamics”, KIT Karlsruhe, 19.6.2017
- “What if We Want to Know More about Counterfactuals? How Experiments, Thought Experiments and Computer Simulations Help Gain Knowledge about Counterfactual Conditionals”, Workshop “Simulation and Thought Experiment”, Université de Genève, 8.9.2017 (*invited*)
- “Reflective Equilibrium Spelled Out: A Formal Model Based Upon the Theory of Dialectical Structures”, Colloquium “Logic and Theoretical Computer Science” of the Logic and Theory Group, Universität Bern, 6.4.2017
- “Stell Dir vor, es ist Wissenschaft, und keiner hat Phantasie – Über Potentiale und Grenzen der Imagination in den Wissenschaften” (“Imagine Science Without Imagination – On the Potentials and Limitations of Imagination in the Sciences), Münchenwiler-Seminar 2017 “Imagination: Erkenntnisfortschritt in den Wissenschaften” (“Imagination – Progress in the Sciences”), Münchenwiler, 1.4.2017 (*invited*)
- “How Can We Learn Useful Things from Big Data? Data Mining from the Perspective of Meno’s Problem” Bremen, Symposium “Epistemology of Big Data in Physics”, Annual Conference of the German Physical Society, Bremen, 16.3.2017 (*invited*)
- “Ontic Probabilities in Physics – Are Humean Chances a Serious Contender? Grandia Natural Philosophy Workshop”, Grandia/Lugano, 17.2.2017 (*invited*)
- “Reflective Equilibrium Fleshed out – A Formal Account of the Method”, Research Colloquium in Theoretical Philosophy, Heinrich-Heine-Universität Düsseldorf, 17.1.2017 (*invited*)
- “Rawls reloaded: Wie können wir das Überlegungsgleichgewicht verstehen?” (“Rawls reloaded: How Can We Understand Reflective Equilibrium?”), Colloquium of the Institute for Philosophy, Universität Erfurt, 2.11.2016 (*invited*)
- “More Than Just Good Luck. How We Can Learn From Monte Carlo Simulations”, Höchstleistungsrechenzentrum Stuttgart, 24.8.2016 (*invited*)
- “Realizing Rawls on Method – What Can Reflective Equilibrium Achieve in Philosophy?” EXRE-colloquium, Université de Fribourg, 1.6.2016 (*invited*)
- “Reflective Equilibrium – A Method for Philosophy of Science?” GWP.2016, “Philosophy of Science Between the Natural Sciences, the Social Sciences, and the Humanities”, Universität Düsseldorf, 10.3.2016

- “Searching Life out There: Toward an Epistemology of Exobiology and of Related Fields”, Université de Fribourg, 16.12.2015 (*invited*)
- “Aufs Ganze gehen – geht das? Erkenntnisansprüche und -grenzen in der Kosmologie” (“Getting the Whole Thing? – Aspirations to, and Limits of, Knowledge in Cosmology”), Fränkische Gesellschaft für Philosophie, Bamberg, 12.11.2015 (*invited*)
- “Computer scientists wissen mehr!? Computersimulationen und Wissensansprüche” (“Do Computer Scientists Know More? Computer Simulations and Claims to Knowledge”), Workshop “The Science and Art of Simulation” (SAS’15), Höchstleistungs-Rechenzentrum Stuttgart, 12.10.2015 (*invited*)
- Laws of Nature from a Humean Perspective, “3rd International Summer School in Philosophy of Physics: The Ontology of Physics”, Saig, 24.7.2015
- Philosophical Issues in Simulation Validation, Konferenz “How to Build Trust in Computer Simulations: Towards a General Epistemology of Validation”, Hannover, 9.7.2015
- “Just Playing With Computers? Toy Models and Computer Simulations”, Workshop “Just Playing? Toy Models in the Sciences”, Munich Center for Mathematical Philosophy, Ludwig-Maximilians-Universität München, 8.5.2015 (*invited*)
- “Whewell’s Conception of Philosophy of Science”, conference “Philosophy As Science”, Universiteit Utrecht, 11.4.2015
- “What Sort of Concept Is Life? Philosophical Reflections About the Question ‘What Is Life?’”, Konferenz “What Is Life? Evolutionary Perspectives, Philosophical Considerations and Theological Questions”, Universität Bern, 21.1.2015
- “The Age of the Universe and its Measurement”, Workshop “The History of Time Accuracy in Physics and Astronomy”, Observatoire de Paris, 6.10.2014 (*invited*)
- “Experimenting and Modeling: Sharp Distinctions, Integration, or just a Mess?”, Workshop “Toward a More Integrative View on Modelling, Experimenting, and Simulating”, Université de Geneve, 27/06/2014 (*invited*)
- “More than just Good Luck. How to Explain the Success of Monte Carlo Simulations”, Workshop “Science & philosophie regards croisés sur les simulations numériques”, Université Pierre Mendeès-France, Grenoble, 10/12/2013 (*invited*)
- “Maths Books and the Book of Nature – Mathematics in Scientific Representation”, Workshop “Mathematical Philosophy”, University of Lausanne, 3/12/2013 (*invited*)
- “Hat der Raum-Relationalismus Hand und Fuss? Händigkeit und andere Herausforderungen für den Relationalismus” (“Relationalism without Rhyme or Reason? Chirality and other Challenges for Relationalism”), Philosophische Gesellschaft Basel, University of Basel, 29/10/2013 (*invited*)
- “Representation via Probabilities: Models of Probabilistic Modeling”, Conference “Probabilistic Modeling in Science and Philosophy”, University of Bern, 12/10/2013

- “Naturalismus” (“Naturalism”), “Physics and Philosophy of Time”, 57th annual conference of the Instituts der Görresgesellschaft für interdisziplinäre Forschung, Munich, 13/9/2013 (*invited*)
- “Time in Cosmology”, Evening Lecture at the summer school “Physics and Philosophy of Time”, Saig (Germany), 25/7/2013 (*invited*)
- “Are Physicists Better Philosophers? – Reflections on Erhard Scheibe’s ‘Die Philosophie der Physiker’”, International Conference “Between Rationalism and Empiricism – The Legacy of Erhard Scheibe”, TU Dortmund, 15/6/2013 (*invited*)
- “Statistical Methods and the Meaning of Probabilities. A Philosopher Looks at Statistics”, Colloquia on Probability and Statistics, University of Bern, 12/4/2013 (*invited*)
- “Good just isn’t Good enough. Best System Probabilities and the Foundations of Statistical Mechanics”, Annual Conference of the German Physical Society, Philosophy of Physics working group, University of Jena, 25/2/2013 (*invited*)
- “Gut ist uns nicht gut genug. Hume’sche Best-system-Wahrscheinlichkeiten und die Grundlagen der statistischen Physik” (“Good just Isn’t Good Enough. Humean Best System Probabilities and the Foundations of Statistical Mechanics”), Naturphilosophisches Kolloquium, TU Dortmund, 31/1/2013 (*invited*)
- “Humean Chances and the Foundations of Statistical Mechanics”, ESF workshop about Causation, Dispositions and Probabilities in Physics and Biology, University of Lausanne, 22/11/2012 (*invited*)
- “A Lewisian Guide to the ‘Spielraumtheorie’. On the Relationship between David Lewis’s Humean Chances and Probabilities according to the ‘Spielraumtheorie’”, Workshop “Johannes von Kries’ Conception of Probability, its Roots and Impact”, University of Bonn, 14/9/2012 (*invited*)
- “Science without Principles? Über Wohl und Wehe eines wissenschaftsphilosophischen Partikularismus” (“Science without Principles? On Prospects and Problems of a Scientific Particularism”), Philosophy and History of Science Colloquium at the Ruhr University Bochum, 28/6/2012 (*invited*)
- “No Risk no Fun in the Virtual World: How Can We Learn from Monte Carlo Simulations?” TiLPS Colloquium, Tilburg Center for Logic and Philosophy of Science, 6/6/2012 (*invited*)
- “Reich’ mir die Hand ... Händigkeit und Relationalismus” (“Give Me Your Hand ... Chirality and Relationalism”), 1. Griffenberger Gespräch, University of Wuppertal, 16/5/2012 (*invited*)
- “No Risk no Fun in the Virtual World: How Can We Learn from Monte Carlo Simulations?” Oberseminar “Effizienz dezentraler Strukturen”, University of Bayreuth, 7/5/2012 (*invited*)
- Big or Bug? A Skeptical Guide to Humean Chances, Workshop “Laws and Chances”

der DFG-Forschergruppe “Causation, Laws, Dispositions, Explanation”, Universität zu Köln, 5/3/2012 (*invited*)

- “No Risk no Fun in the Virtual World. How Monte Carlo Simulations Represent”, Workshop “The Plurality of Numerical Methods in Computer Simulations and their Philosophical Analysis”, ISHPST, Paris, 3/11/2011
- “Objektive Wahrscheinlichkeiten in den Wissenschaften” (“Objective Probabilities in the Sciences”), XXII. German Congress for Philosophy, Ludwig Maximilian University of Munich, 15/9/2011
- “Wie repräsentieren probabilistische Modelle aus der Physik?” (“How do Probabilistic Models Represent?”), Annual Fall Workshop of the Philosophy of Physics working group in the German Physical Society (“”), TU Munich, 10/9/2011
- “Objektive Wahrscheinlichkeiten” (“Objective Probabilities”), Philosophical Colloquium, University of Cologne, 30/6/2011 (*invited*)
- “Spiegeln wissenschaftliche Wahrscheinlichkeitsfeststellungen objektive Tatsachen?” Philosophical Colloquium (“Philosophisches Mittelbaukolloquium”), University of Duisburg-Essen, 9/6/2011 (*invited*)
- “Are Computer Calculations Argume
- “Are Computer Calculations Arguments?”, ECAP10 (European conference on Computing and Philosophy), TU Munich, 5/10/2010
- “Space-time Theories at Sea: The Case of Cosmology”, Workshop “Towards a Theory of Spacetime Theories”, University of Wuppertal, Interdisziplinäres Zentrum für Wissenschafts- und Technikforschung, 21/7/2010
- “Welchen Beitrag liefern Computersimulationen zum naturwissenschaftlichen Erkenntnisgewinn?” (“What is the Contribution that Computer Simulations Make to the Working of Science?”), University of Wuppertal, Interdisziplinäres Zentrum für Wissenschafts- und Technikforschung, 16/6/2010
- “The Several Faces of the Cosmological Principle”, Annual Conference of the German Physical Society, Philosophy of Physics working group, Bonn, 15/3/2010
- “Computer Simulations Are Thought Experiments Are Arguments?”, workshop “Thought Experiments and Computer Simulations”, Paris, 11/3/2010
- “Was heißt es, einen Gegenstand als Naturzweck zu beurteilen? Überlegungen zu Kants ‘Analytik der teleologischen Urteilskraft’ ” (“What does it Mean to Judge something a Natural End? Thoughts about Kant’s ‘Analytic of the Teleological Power of Judgment’ ”), Conference “Teleology and Biology in the Context of Kant’s ‘Critique of the Power of Judgment’ ”, University of Luxemburg, 11/12/2009 (*invited*)
- “Optimizing Two-tier Voting Systems with Equipopulous Units”, VPP Governance Summer workshop, Warwick, 16/7/2009 (with L. Bovens)

- “How to Make a Difference – Measures of Voting Power Revamped”, VPP Governance Summer workshop, Warwick, 15/7/2009 (with L. Bovens)
- “Making a Difference. Measures of Voting Power Revamped”, Research Seminar in Philosophy and Economics, Tilburg Center for Logic and Philosophy of Science, 14/5/2009 (*invited*)
- “How to Argue Concerning Theoretic Principles. Lessons from the History of Cosmology”, second conference on Integrated History and Philosophy of Science, University of Notre Dame, 13/3/2009
- “How Simulations Sample Models of Theories. A Formal Investigation into the Relation between Simulations and Theories”, “Models and Simulations 3” conference, University of Virginia, 7/3/2009
- “History Matters! But Why? And How?”, Lunchtime Colloquium, Center for Philosophy of Science, University of Pittsburgh, 24/2/2009
- “Making a Difference. Measures of Voting Power Revamped”, Philosophy Department, Carnegie Mellon University, Pittsburgh, 2/2/2009
- “Science of the Universe? Physical Cosmology and our Limited Horizon”, Lunchtime Colloquium, Center for Philosophy of Science, University of Pittsburgh, 23/9/2008
- “Kants mathematische Antinomie” (“Kant’s Mathematical Antinomy”), Kant Summer School at Weltenburg, 26/8/2008
- “Does the Pessimistic Meta-induction Support van Fraassen?”, Annual Conference of the British Society for the Philosophy of Science 2008, University of St. Andrew’s, 11/7/2008 (with L. Fahrback)
- “Measuring Influence for Dependent Voters: A Generalisation of the Banzhaf Measure”, 8th Conference on Logic and the Foundations of Game and Decision Theory, Amsterdam 3/7/2008 (with L. Bovens)
- “Joint Action can Make a Difference: Measures of Voting Power Generalized”, 8th Conference on Logic and the Foundations of Game and Decision Theory, Amsterdam 4/7/2008
- “Über Wesen und Funktion wissenschaftlicher Computersimulationen. Eine wissenschaftsphilosophische Betrachtung” (“On the Nature and Role of Scientific Computer Simulations. A Philosophy of Science Account”), Philosophy and History of Science Colloquium at the Ruhr University Bochum, 26/6/2008 (*invited*)
- “Does the Pessimistic Meta-induction Support van Fraassen?”, Research Colloquium Theoretical Philosophy, University of Düsseldorf, 3/6/2008 (with L. Fahrback)
- “How to Decide on Decision Rules. An Economic Approach to a Political Issue”, Dortmund Colloquium in Theoretical Economy, TU Dortmund, 19/5/2008 (*invited*)
- “How to Decide on Decision Rules. A Welfarist Approach with Dependent Utilities”, Dutch Social Choice Colloquium, Tilburg University, 29/2/2008 (*invited*)

- “Zwei Konzeptionen normativer Handlungsgründe” (“Two Conceptions of Normative Practical Reasons”), Colloquium of the ZEW, Leibniz University Hannover, 30/10/2007 (*invited*)
- “Reasons for Action and Moral Principles. A Fresh Look at Dancy’s Particularism”, University of Iceland, 9/10/2007 (*invited*)
- “Measuring Influence Under Probability Models With Dependent Votes”, Workshop “The Problems of Measuring A Posteriori or Actual Voting Power”, organized by the VPP group at the LSE London, Warwick University, 30/8/2007
- “Measuring Influence for Dependent Voters: A Generalisation of the Banzhaf Measure”, Workshop “The Problems of Measuring A Posteriori or Actual Voting Power”, organized by the VPP group at the LSE London, Warwick University, 30/8/2007 (with L. Bovens)
- “Two Kinds of Simulations”, Annual Conference of the German Physical Society, Philosophy of Physics working group, Heidelberg, 8/3/2007
- “How to Decide on Decision Rules”, Research Colloquium Theoretical Philosophy, University of Düsseldorf, 9/1/2007 (*invited*)
- “Praktische Gründe und moralische Prinzipien” (“Practical Reasons and Moral Principles”), GAP.6 (German Association of Analytic Philosophy), Berlin, 13/9/2006
- “How Should the Weights be Set in a Federal Assembly? A Welfarist Argument from Cartel Formation”, GAP.6 (German Association of Analytic Philosophy), Berlin, 12/9/2006 (with L. Bovens)
- “Do Computer Simulations Change the Way Physics Works?”, conference “Models and Simulations” (organized by the IHPST at the University of Paris I, and the CPNSS at the LSE), Paris, 13/6/2006
- “Eine Machtindex-Analyse von Amendment 36 in Colorado” (“A Power Measure Analysis of Colorado’s Amendment 36”), Annual Workshop of the “AK Handlungs- und Entscheidungstheorie” (“Subgroup decision theory and theory of action”) of the German Society for Political Science, Bad Bevensen, 10/6/2006 (with L. Bovens)
- “The Bayesian Approach to Quantum Mechanics. What’s New and what’s Good?”, Annual Conference of the German Physical Society (“Philosophy of Physics group”), Dortmund, 29/3/2006
- “Nach welcher Regel sollten wir entscheiden? Philosophische und entscheidungstheoretische Perspektiven auf die EU-Verfassung” (“According to which Rule Shall we Decide? Philosophical and Decision Theoretic Perspectives at the EU Constitution”), Dortmund Philosophy Colloquium Series, 13/12/2005 (*invited*)
- “Degressive Proportionality in a Federal Assembly: An Argument from Cartel Formation”, Choice Group Seminar at the LSE, London, 7/12/2005 (with L. Bovens, *invited*)

- “Wie man Handlungsoptionen finden kann. Oder: praktische Kreativität” (“How to find Options for Acting or Practical Creativity”), XXth Congress for Philosophy of the “Deutsche Gesellschaft für Philosophie” (German Philosophical Association), Berlin, 29/9/2005
- “Why Degressive Proportionality? An Argument from Cartel Formation”, Workshop “Philosophy, Economics and Public Policy” at the Fifth European Congress for Analytic Philosophy, Lissabon, 28/8/2005 (with L. Bovens)
- “True Concepts?”, Fifth European Congress for Analytic Philosophy, Lissabon, 27/8/2005
- “Zweck-Mittel-Rationalität und praktische Kohärenz” (“Means Ends Rationality and Practical Coherence”), Workshop on coherence and reflective equilibrium in ethics, University of Hamburg, 2/7/2005 (*invited*)
- “Entscheiden, wie man entscheidet – Eine entscheidungstheoretische Analyse zur EU-Verfassung” (“Deciding how to Decide. A Decision-theoretic Analysis of some Aspects of the EU Constitution”), Annual Workshop of the “AK Handlungs- und Entscheidungstheorie” (“Subgroup decision theory and theory of action”) of the German Society for Political Science, University of Mannheim, 25/6/2005
- “Practical Coherence and its Role for Moral Philosophy: A Comment on Michael Smith”, workshop “Good and Right, Free and Reasonable. Discussions with Michael Smith” at the University of Konstanz, 24/6/2005 (with A. Kusser)
- “A Utilitarian Assessment of Alternative Decision Rules in the Council of Ministers”, Conference on Philosophical Aspects of Social Choice Theory and Welfare Economics, Caen, 21/6/2005 (with L. Bovens and S. Hartmann)
- “What is the Best Decision Rule for the EU Council of Ministers? Confronting a Political Question with Economic Techniques”, Adam Smith Seminar at the University of Hamburg, 5/4/2005 (with L. Bovens, *invited*)
- “Knowledge beyond the Horizon? - An Epistemological Problem for Physical Cosmology”, Annual Conference of the German Physical Society (“Philosophy of Physics group”), Berlin, 8/3/2005
- “What is the Best Decision Rule for the European Council of Ministers?”, Choice Group Seminar at the LSE, London, 23/2/2005 (*invited*)
- “Entscheiden, wie man entscheidet. Ein philosophischer Blick auf die EU-Verfassung” (“Deciding how to Decide. A Philosophical Perspective at the EU Constitution”), Konstanz Philosophy Colloquium Series, 13/1/2005 (*invited*)
- “Cosmology Beyond our Horizon? On the Prospects of Physical Knowledge about the Universe”, workshop within the “Philosophy, Probability and Physics” seminar series, Paris, 15/12/2004