Matthias Schemmel – Curriculum vitae

Universität Hamburg
Faculty of Humanities
Department of Philosophy
Programme of Liberal Arts and Sciences
Edmund-Siemers-Allee 1
D-20146 Hamburg, Germany
matthias.schemmel@uni-hamburg.de

August 2022

Education and employment

Since February 2022	Professor of Historical Epistemology at the University of Hamburg.
2012–2022	Senior research scholar at the Max Planck Institute for the History of Science, Berlin.
2008–2012	Head of the Junior Research Group *Historical Epistemology of Space* at the Humboldt University of Berlin and the Max Planck Institute for the History of Science in the framework of the Project Cluster of Excellence *Topoi—The Formation and Transformation of Space and Knowledge in Ancient Civilizations*.
Spring 2008 and winter 2006/7	Visiting assistant professor (*Lehraufträge*) at the University of Bern.
1997–2008	Research scholar at the Max Planck Institute for the History of Science, Berlin.
2006	*Promotion* (doctoral degree) in history, Humboldt University of Berlin. Dissertation in the field of early modern mechanics (two awards, see below).
1997	*Diplom* (Master degree) in theoretical physics at the University of Hamburg. Diploma thesis in the field of quantum gravity.
1989–1997	Studied physics, astronomy, and mathematics at the University of Hamburg and at Nanjing University, China (1992–1993).

Awards and grants

2007	Georg-Uschmann-Award for the history of science of the *German Academy of Sciences Leopoldina*.
2006	Junior scholar award of the *Georg Agricola Society*.
1990–1996	Scholarship of the *Studienstiftung des deutschen Volkes*.
1992–1993	Scholarship for study in China through the *Studienstiftung des deutschen Volkes*.

Organization and service to the discipline

Since 2017	Member of the International Editorial Committee of *Chinese Annals of History of Science and Technology*
January 2017 – December 2019	Advisory Editor of the journal *ISIS*
Since April 2013	International member of the Harriot Seminar Committee chaired by Stephen Clucas (Birkbeck, London)
5–7 July 2018	Member of the Program Committee of the Seventh International Conference on Integrated History and Philosophy of Science, *The Evolution of Knowledge*, at the Leibniz University of Hannover.
October 2007 – January 2022	Member of the library commission at the Max Planck Institute for the History of Science
September 2015 – June 2016	Co-organizer (with Giulia Giannini and Pietro Omodeo) of the colloquium of the Max Planck Institute for the History of Science; topic: *Institutions of Science in History*
December 2013	Organizer of a conference in commemoration of Peter Damerow
November 2007 – November 2012	Deputy member of the directorate of the *Topoi* Project Cluster.
2007	Contribution to application and presentation of the Project Cluster of Excellence *Topoi—The Formation and Transformation of Space and Knowledge in Ancient Civilizations*, research group E II.
23–25 May 2007	Participant of the PAC-Meeting in preparation of the 97th Dahlem Workshop on the topic *The Globalization of Knowledge and Its Consequences* of the Free University, Berlin.
July 2001 and August 2007	Co-organizer (2001 with Peter Damerow; 2007 with Malcolm Hyman and Peter Damerow) of interdisciplinary workshops on the *Origin of Writing*.
2001–2006	Coordinator of the cooperation between the Max Planck Institute for the History of Science (Berlin) and its Chinese Partner Group at the Institute for the History of Natural Sciences of the Chinese Academy of Sciences (Beijing).
25–27 October 2005	Co-organizer (with Tom Kindt and Jasper Liptow) of the *Interdisciplinary Round Table Discussion on Concept Change* (DFG-Rundgespräch: Begriffswandel – ein interdiszipliäres Kolloquium), Akademie Sankelmark, Flensburg, funded by the Deutsche Forschungsgemeinschaft (DFG).
2005	Co-organizer (with Stephen Clucas) of the panel *Thomas Harriot: an Elizabethan Man of Science in European Context*, XXII International Congress of History of Science and Technology, Beijing 2005.

10–15 March 2005	Member of local organizing committee of the *Seventh International Conference on the History of General Relativity*, La Orotava, Canary Islands.

Referee for the following journals, series, and institutions:

Chinese Annals of History of Science and Technology
Journal for General Philosophy of Science
Studies in the History and Philosophy of Science
Journal of General Relativity and Gravitation
Journal of the International Society for the History of Philosophy of Science
ISIS Journal
Artefact: Techniques, Histoire et sciences humaines
Boston Studies in the Philosophy of Science (Springer)
Archimedes (Springer)
Greek and Roman Culture in East Asia: Transfer and Reception (book project)
Fonds Wetenschappelijk Onderzoek
Royal Society Leverhulme Trust
All Souls College, Oxford University
Schweizerischer Nationalfonds

Digital projects (selection)

Thomas Harriot's manuscripts online (ongoing), with Jackie Stedall†, University of Oxford, and Robert Goulding, University of Notre Dame (http://echo.mpiwg-berlin.mpg.de/content/scientific_revolution/harriot/harriot_manuscripts).

Early modern mathematical manuscripts in the vernacular languages of South Asia (ongoing), with Senthil Babu (French Institute of Pondicherry) and Roy Wagner (ETH Zurich).
(Web-appearance pending).

The Hilprecht Nachlass and the complete Hilprecht collection of cuneiform tablets in 3-D scans (ongoing), with Manfred Krebernik, Friedrich Schiller University Jena (https://hilprecht.mpiwg-berlin.mpg.de).

Collection of Sources on Chinese Mechanical Knowledge, with collaborators from the Institute for the History of Natural Sciences, Beijing, and the Max Planck Institute for the History of Science, Berlin (http://echo.mpiwg-berlin.mpg.de/content/chineseknowledge/china).

Commentarii Collegii Conimbricensis e Societate Jesu. In universam dialecticam Aristotelis Stagirita, with Henrique Leitao, University of Lisbon (http://echo.mpiwg-berlin.mpg.de/MPIWG:BXR5HSAR).

Edition Open Access (co-initiator of the collaborative Max Planck Research Library for the History and Development of Knowledge)
(http://www.edition-open-access.de).

Publications

Authored books

Theoretical Knowledge in the 'Mohist Canon' (with William G. Boltz). Dordrecht: Springer, (in press).

Historical Epistemology of Space: From Primate Cognition to Spacetime Physics. Cham: Springer, 2016.

The English Galileo: Thomas Harriot's Work on Motion as an Example of Preclassical Mechanics, 2 vols. *Boston Studies in the Philosophy of Science* 268. Dordrecht: Springer, 2008.

Chuanbo yu huitong: 'Qiqi tushuo' yanjiu yu jiaozhu 传播与会通：«奇器图说»研究与校注 [*Transmission and Integration: New Research on, and an Annotated Edition of, 'Qiqi tushuo'*, 2 vols. (in Chinese)] (with Zhang Baichun, Tian Miao, Jürgen Renn, and Peter Damerow). Nanjing: Jiangsu kexue jishu chubanshe, 2008.

Edited books

Culture and Cognition: Essays in Honor of Peter Damerow (with Jürgen Renn). Berlin: Edition Open Access, 2019.

Emergence and Expansion of Preclassical Mechanics (with Rivka Feldhay, Jürgen Renn, and Matteo Valleriani). Dordrecht: Springer, 2018.

Spatial Thinking and External Representation: Towards a Historical Epistemology of Space. Berlin: Edition Open Access, 2016.

Einstein and the Changing Worldviews of Physics (with Christoph Lehner and Jürgen Renn). *Einstein Studies* 12. Basel: Birkhäuser, 2012.

Gravitation in the Twilight of Classical Physics, 2 vols. (*1: Between Mechanics, Field Theory, and Astronomy*; *2: The Promise of Mathematics*; with Jürgen Renn). *Boston Studies in the Philosophy of Science* 250. Dordrecht: Springer, 2007.

Peer-reviewed journal articles and book chapters

"Everyday Language and Technical Terminology: Reflective Abstractions in the Long-term History of Spatial Terms." To appear in: Markus Asper (ed.), *On (Ancient) Terminology*, forthcoming.

"Arguing from Appearance: The Numerical Reconstruction of Galactic Tails and Bridges." In: Matteo Valleriani (ed.), *Images in Science*, forthcoming.

"Duration and Non-Duration in the Ancient Chinese *Mohist Canon*: Cognitive universals and cultural specifics." In: Brisca Hohenwald, Neele Illner, and Jürgen Renn (eds.), *In anderen Zeiten: Zeitdiskurse im Wandel / In Other Times: Changing Discourses of Time across Human History*. Berlin: Frank & Timme, 2022, pp. 209–224.

"科学のクローハル・ヒストリーから見る人新世" [Global History of Science as a Knowledge Resource for the Anthropocene (in Japanese)]. In: Masahiro Terada and Daniel Niles (eds.), *Anthropocene and Asia: Investigation, Critique, and Contribution from the*

Environmental Humanities Perspective, RIHN Science Series, Kyoto: Kyoto University Press, 2021, pp. 411–438.

"Global History of Science as a Knowledge Resource for the Anthropocene." *Global Sustainability* 3 (2020), e22, 1–8. https://doi.org/10.1017/sus.2020.16

"Zur historischen Epistemologie des Raumes." In: Jürgen Renn and Matthias Schemmel (eds.), *Culture and Cognition: Essays in Honor of Peter Damerow*. Berlin: Edition Open Access, 2019, pp. 145–154.

"Mental Models as Cognitive Instruments in the Transformation of Knowledge" (with Peter Damerow, Christoph Lehner, Jürgen Renn, and Matteo Valleriani). In: Rivka Feldhay, Jürgen Renn, Matthias Schemmel, and Matteo Valleriani (eds.), *Emergence and Expansion of Preclassical Mechanics*. Dordrecht: Springer, 2018, pp. 3–28.

"The Early History of Weighing Technology from the Perspective of a Theory of Innovation" (with Jochen Büttner and Jürgen Renn). In: Rivka Feldhay, Jürgen Renn, Matthias Schemmel, and Matteo Valleriani (eds.), *Emergence and Expansion of Preclassical Mechanics*. Dordrecht: Springer, 2018, pp. 81–109.

"Introduction" (with Rivka Feldhay, Jürgen Renn, and Matteo Valleriani). In: Rivka Feldhay, Jürgen Renn, Matthias Schemmel, and Matteo Valleriani (eds.), *Emergence and Expansion of Preclassical Mechanics*. Dordrecht: Springer, 2018, pp. ix–xiii.

"Creating Room for Historical Rationality [on Ludwik Fleck's 'Entstehung und Entwicklung einer wissenschaftlichen Tatsache']" (with Fynn Ole Engler and Jürgen Renn). *Isis* 109 (2018), 87–91, DOI: 10.1086/697180.

"Towards a historical epistemology of space: an introduction." In: Matthias Schemmel (ed.), *Spatial Thinking and External Representation: Towards a Historical Epistemology of Space*. Berlin: Edition Open Access, 2016, pp. 1–33.

"Theoretical Reflections on Elementary Actions and Instrumental Practices: The Example of the 'Mohist Canon'" (with William G. Boltz). In: Matthias Schemmel (ed.), *Spatial Thinking and External Representation: Towards a Historical Epistemology of Space*. Berlin: Edition Open Access, 2016, pp. 121-144.

"Experience and Representation in Modern Physics: The Reshaping of Space" (with Alexander Blum and Jürgen Renn). In: Matthias Schemmel (ed.), *Spatial Thinking and External Representation: Towards a Historical Epistemology of Space*. Berlin: Edition Open Access, 2016, pp. 191-212.

"Medieval Representations of Change and Their Early Modern Application." *Foundations of Science* 19 (2014), 11–34.

"Stevin in Chinese: Aspects of the Transformation of Early Modern European Science in Its Transfer to China." In: Harold J. Cook and Sven Dupré (eds.). *Translating Knowledge in the Early Modern Low Countries*, Zürich: LIT, 2013, pp. 369-385.

"The Transmission of Scientific Knowledge from Europe to China in the Early Modern Period." In: Jürgen Renn (ed.), *The Globalization of Knowledge in History*, Berlin: Edition Open Access, 2012, pp. 269-293.

"1912: A turning point on Einstein's way to general relativity" (with Alexander Blum, Jürgen Renn, Donald Salisbury, and Kurt Sundermeyer). *Annalen der Physik* 524 (2012) 1, pp. A11–A13.

"Theories of Gravitation in the Twilight of Classical Physics" (with Jürgen Renn). In: Christoph Lehner, Jürgen Renn, and Matthias Schemmel (eds.). *Einstein and the Changing Worldviews of Physics*. Basel: Birkhäuser, 2012, pp. 3–22.

"The English Galileo: Thomas Harriot and the Force of Shared Knowledge in Early Modern Mechanics." *Physics in Perspective* 8 (2006), pp. 360–380.
[Reprinted with slight modifications in: Robert Fox (ed.). *Thomas Harriot and His World: Mathematics, Exploration, and Natural Philosophy in Early Modern England*. Farnham: Ashgate, 2012, pp. 89–111]

"Mechanics in the 'Mohist Canon' and Its European Counterpart" (with Jürgen Renn). In: Hans Ulrich Vogel, Christine Moll-Murata and Gao Xuan (eds.), *Studies on Ancient Chinese Scientific and Technical Texts: Proceedings of the 3rd ISACBRST*. Zhengzhou: Elephant Press, 2006, pp. 24–31.

"An Astronomical Road to General Relativity: The Continuity between Classical and Relativistic Cosmology in the Work of Karl Schwarzschild." *Science in Context* 18 (2005) 3, pp. 451–478.

"Gekrümmte Universen vor Einstein: Karl Schwarzschilds kosmologische Spekulationen und die Anfänge der relativistischen Kosmologie." In: Hilmar W. Duerbeck and Wolfgang R. Dick, (eds.), *Einsteins Kosmos: Untersuchungen zur Geschichte der Kosmologie, Relativitätstheorie und zu Einsteins Wirken und Nachwirken*. Frankfurt a. M.: H. Deutsch, 2005, pp. 56–65.

"Exploring the Limits of Classical Physics: Planck, Einstein and the Structure of a Scientific Revolution" (with Jochen Büttner and Jürgen Renn). *Studies in History and Philosophy of Modern Physics* 34 (2003), pp. 37–59.

"The Challenging Images of Artillery: Practical Knowledge at the Roots of the Scientific Revolution" (with Jochen Büttner, Peter Damerow, and Jürgen Renn). In: Wolfgang Lefèvre, Jürgen Renn, and Urs Schoepflin (eds.), *The Power of Images in Early Modern Science*. Basel: Birkhäuser, 2003, pp. 3–27.

"England's Forgotten Galileo: A View on Thomas Harriot's Ballistic Parabolas." In: José Montesinos and Carlos Solís (eds.), *Largo campo di filosofare: Eurosymposium Galileo 2001*. La Orotava: Fundación Canaria Orotava de Historia de la Ciencia, 2001, pp. 269–280.

Further publications

"Leonardo's Vision of a Science of Practice" (with Jürgen Renn). In: J. Renn, M. Valleriani, S. Hoffmann, and A. Becchi (eds.), *Leonardo's Intellectual Cosmos*, Florence: Giunti, 2021, pp. 287–297.

"Leonardos Vision einer Wissenschaft der Praxis" (with Jürgen Renn). In: J. Renn, M. Valleriani, S. Hoffmann, and A. Becchi (eds.), *Leonardos intellektueller Kosmos*, Florence: Giunti, pp. 287–297.

"The manuscripts of Thomas Harriot (1560–1621)" (with Robert Goulding), *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 32:1 (2017), pp. 17-19, DOI: 10.1080/17498430.2017.1260792

"Wie oft sind die Naturwissenschaften entstanden?" (with Jürgen Renn). In: *Nova Acta Leopoldina*, *NF* 414 (2017): pp. 47–60.

"Harriot, Thomas: Renaissance Philosophy." In: Marco Sgarbi (ed.), *Encyclopedia of Renaissance Philosophy*, Cham: Springer, 2016.

"Review of: A. Mark Smith, 'From Sight to Light: The Passage from Ancient to Modern Optics', University of Chicago Press, 2014." *Centaurus*, 2015, pp. 126-128.

"Archimede in Cina." In: Giovanni di Pasquale and Claudio Parisi Presicce (eds.), *Archimede: Arte e scienza dell' invenzione*, Roma: Musei Capitolini, 2013, pp. 168-169.

"Das Aufeinandertreffen zweier Wissenssysteme in Leben und Arbeit des Jesuitengelehrten Johannes Schreck" (with Jürgen Renn). In: Moritz Wullen, Michael Lailach, and Jörg Völllnagel (eds.). *Von mehr als einer Welt: die Künste der Aufklärung*. Berlin: Kunstbibliothek. Staatliche Museen zu Berlin, 2012, pp. 305–327.
[Previously printed in: *Die Kunst der Aufklärung: eine Ausstellung der Staatlichen Museen zu Berlin, der Staatlichen Kunstsammlungen Dresden, der Bayerischen Staatsgemäldesammlungen München und des National Museum of China*. Berlin: Staatliche Museen zu Berlin, 2011, pp. 74–83]

"Space as transformed in the history of science" (with Jürgen Renn and Martin Thiering). *eTopoi. Journal for Ancient Studies, 1* (2011) 1-11.

"Book Review: Janet Beery and Jacqueline Stedall (eds.), 'Thomas Harriot's Doctrine of Triangular Numbers: the »Magisteria Magna«'." *Notes and Records of the Royal Society of London* 64 (2010) 3, pp. 303–304.

"Sidereus Nuncius" and "Galileo Galilei." In: Heinz Ludwig Arnold (eds.), *Kindlers Literatur Lexikon,* 3rd edition. Stuttgart: Metzler, 2009.

"Der richtige Abstand: zur Relativität räumlicher Topoi." *Raumwissen* 1 (2009) 1, pp. 26–29.

"Wie entstehen neue Weltbilder? Die Herausforderung der Kosmologie durch die Erfindung des Teleskops." *Sterne und Weltraum: Dossier* (2009) 1, pp. 52–62.

"Curved Universes before Einstein: Karl Schwarzschild's Cosmological Speculations." In: Jürgen Renn (ed.), *Albert Einstein—Chief Engineer of the Universe: One Hundred Authors for Einstein*. Berlin: Wiley-VCH, 2005, pp. 90–93.

Contributions "Ernst Mach", "Jöns Jakob Berzelius", "Newton's Theory of Light", "The Hierarchical Structure of the Modern Cosmos", "Distance Determination within the Cosmos", "Karl Schwarzschild", "Non-Euclidean Geometry" and "Generalization of the Relativity Principle." In: Jürgen Renn (ed.), *Albert Einstein—Chief Engineer of the Universe: Einstein's Life and Work in Context*. Berlin: Wiley-VCH, 2005, pp. 35, 39, 49, 53, 61, 69.

"Thomas Harriot as an English Galileo: The Force of Shared Knowledge in Early Modern Mechanics." *Bulletin of the Society for Renaissance Studies* 21 (2003), pp. 1–10.

"Die Entstehung der modernen Wissenschaft als Transformation kollektiven Wissens: Thomas Harriots Forschungen über die Bewegung als Gegenstand einer historischen Epistemologie." In: Generalverwaltung der Max-Planck-Gesellschaft (ed.), *Jahrbuch der Max-Planck-Gesellschaft 2003*. München: Saur, 2003.

"Karl Schwarzschild." In: Walter Greulich (ed.), *Lexikon der Physik*. Band 5. Heidelberg: Spektrum, 2000, p. 28.

"Review of: Frederick Seitz, 'The Science Matrix: The Journey, Travails, Triumphs', Berlin: Springer 1998." *Physikalische Blätter* 55 (1999), p. 72.

Selected preprints (full list and pdf-downloads available at: https://www.mpiwg-berlin.mpg.de/preprints-to-download)

Everyday Language and Technical Terminology: Reflective abstractions in the long-term history of spatial terms. Preprint of the Max Planck Institute for the History of Science, no. 492, 2019.

Travelling along the Silk Road: A new interpretation of Ptolemy's coordinates (with Irina Tupikova and Klaus Geus). Preprint of the Max Planck Institute for the History of Science, no. 465, 2014.

The Sections on Mechanics in the Mohist Canon. Preprint of the Max Planck Institute for the History of Science, no. 182, 2001.

Waagen und Wissen in China: Bericht einer Forschungsreise (with Jürgen Renn). Preprint of the Max Planck Institute for the History of Science, no. 136, 2000.

Presentations and talks

"The Place of Thomas Harriot in a Global, Long-term History of Knowledge." *Thomas Harriot in Global and Local Contexts: A Quatercentenary Conference*, An online conference organised by the Thomas Harriot Seminar and hosted by The Warburg Institute, London, 10 September 2021.

"Global History of Science as a Knowledge Resource for a Complex Society." *Webinars 'Digital revolution and complex societies' and 'Epistemic commitments of complexity theories'*, Institut rhônalpin des systèmes complexes, Lyon, 29 March 2021.

"Alternatives in the history of science: Pathways of mechanics in early modern Europe and in China." *Tsinghua Lectures on the History and Philosophy of Science*, Tsinghua University, Beijing, 29 October 2020.

"On the Dialectics of Abstraction as a Cognitive and Historical Process." Together with Sascha Freyberg. *International Meeting of the Association for the Philosophy of Mathematical Practice*, ETH Zürich, 20 January 2020.

"Die Rolle handschriftlicher Artefakte in einer globalen Geschichte des Wissens." *Wissensgeschichte mit dem Schwerpunkt Manuskriptforschung*, Universität Hamburg, 5 April 2019.

"Global History of Science as a Knowledge Resource for the Anthropocene." *Humanities on the Ground: Confronting the Anthropocene in Asia*, Research Institute for Humanity and Nature, Kyoto, 13 December 2018.

"Arguing from Appearance: The numerical reconstruction of galactic tails and bridges." *The Epistemic Functions of Vision in Science*, Università degli Studi di Bergamo, 12 October 2018.

"From Historical to Political Epistemology: Examples from the history of the exact sciences." *European Society for the History of Science Biennial Conference 2018*, London, 15 September 2018.

"Commentary on: Reality, Legend, Local Identity: Tracing the Jesuits and Western Learning in local gazetteers (17th-20th century), by Wu Huiyi." Max Planck Institute for the History of Science, Berlin, 30 May 2018.

"The Concepts of Duration and Non-duration in the Ancient Chinese 'Mohist Canon': Cognitive universals and cultural specifics." *Philosophy of Time: A View from the Past*, University of Milan, 17 May 2018.

"Experience and Reflection in a Long-term History of Spatial Concepts." Center for Logic, History and Philosophy of Science, Faculty of Philosophy, University of Bucharest, 11 October 2017.

"How many times have the natural sciences emerged?" *International Symposium on China and the World in the Global History of Science and Technology*, Institute for the History of the Natural Sciences, CAS, Beijing, 30 May 2017.

"Wie oft sind die Naturwissenschaften entstanden?" Together with Jürgen Renn. *Wissenschaften im interkulturellen Dialog: Jahresversammlung 2016 der Nationalen Akademie der Wissenschaften Leopoldina*, Halle, 24 September 2016.

"From Forced to Inertial Motion: Thomas Harriot's integration of practical and theoretical knowledge on motion." *Mathematics Emerging: A tribute to Jackie Stedall and her influence on the history of mathematics (Meeting of the British Society for the History of Mathematics, 2016)*, The Queen's College, Oxford, 10 April 2016.

"The Role of Formalization in the Exact Sciences: A long-term and cross-cultural perspective." *History of Exact Sciences*, ETH Zurich, 14 January 2016.

"Antike Raumkonzepte: Griechenland und China im Vergleich." *TOPOI Jahrestagung*, Freie Universität Berlin, 13 November 2015.

"Geometry in Flux: Thomas Harriot's Geometry of Motion."
(1) *The Mechanization of Geometry: From Antiquity to the Modern Age*, Max Planck Institute for the History of Science, 23 June 2014.
(2) *The Thomas Harriot Seminar 2014*, Birkbeck, University of London, 11 July 2014.

"Everyday Language and Technical Terminology: Mohists – Newton – Einstein." Workshop *Terminology in (Ancient) Sciences*, Humboldt University, Berlin, 5 May 2014.

"Aspekte des frühneuzeitlichen Transfers wissenschaftlichen Wissens von Europa nach China." *Studientag des SFB 980*, Freie Universität Berlin, 31 January 2014.

Thematic discussion of Jens Braarvig's chapter: "The Spread of Buddhism as Globalization of Knowledge." Winter School *Philologies Across the Asias*, Delhi, 19 December 2012.

"Transfer and Transformation: Early Modern European Science in China." Winter School *Philologies Across the Asias*, Delhi, 17 December 2012.

Panel discussion on "The Globalisation of Knowledge: The Role of Scholarly Practice and Scientific Travel." Winter School *Philologies Across the Asias*, Delhi, 12 December 2012.

"Forschungsergebnisse der historischen Epistemologie des Raumes." *TOPOI Jahrestagung*, Humboldt University of Berlin, 26 September 2012.

Panel discussion on "Individuals as Actors of Transfer of Knowledge." Series *Global Transfer of Knowledge and the Globalization of Knowledge* of the Forum Transregionale Studien and the Max Planck Institute for the History of Science, Berlin, 24 May 2012.

"The Place of Mohist Science in a Long-Term History of Knowledge." Colloquium of the Max Planck Institute for the History of Science, Berlin, 23 May 2012.

"Towards an Historical Epistemology of Space." Colloquium on *Modern Geometry and the Concept of Space*, Max Planck Institute for the History of Science, Berlin, 22 March 2012.

"Experience and Theoretical Reflection in the Historical Development of Spatial Knowledge."
(1) *TOPOI Plenartagung*, Humboldt University of Berlin, 13–15 October 2010.
(2) Workshop *Art, Space, and Mobility*, Kunsthistorisches Institut in Florenz (workshop held in Berlin), 11–14 January 2011.

Presentation of Oskar Klein's "Quantentheorie und fünfdimensionale Relativitätstheorie" (1926), "Generalisations of Einstein's Theory of Gravitation Considered from the Point of View of Quantum Field Theory" (1956) and Eugene Wigner's "Relativistic Invariance of Quantum-Mechanical Equations" (1956). *Historical Roots of Quantum Gravity Research*, Caltech, Pasadena, 10–12 August 2010.

"The Projectile Trajectory as a Challenging Object of Study." Workshop *Challenging Objects*, Max Planck Institute for the History of Science, Berlin, 21 January 2010.

"Stevin in Chinese: Aspects of the Transformation of Early Modern European Science in Its Transfer to China." Workshop *Go-Betweens, Translations, and the Circulation of Knowledge in the Early Modern Low Countries*, UCL, London, 13–14 November 2009.

"Alvarus Thomas as a Missing Link between Scholastic and Early Modern Science." Workshop *Alvarus Thomas: Reopening the Liber de triplici motu (1509)*, Lissabon, 28 September 2009.

"Medieval Representations of Change and Their Early Modern Application." *International conference 'Philosophical Aspects of Symbolic Reasoning in Early Modern Science and Mathematics'*. Universiteit Ghent, 29 August 2009.

"The Transformation of Ancient Cosmological Knowledge in Early Modern Times." *TOPOI Area Tuesday*, Max Planck Institute for the History of Science, Berlin, 30 June 2009.

"Das Teleskop und die Entstehung eines neuen Weltbildes durch die Transformation des Wissens." *Tagung zur Fortbildung für Astronomielehrer*, Universität Jena, 27 June 2009.

"The Role of Writing for Theoretical Reflection on Spatial Concepts in Chinese and Greek Antiquity." *Workshop 'Writing and the Transmission of Knowledge'* Werner Oechslin Library, Einsiedeln, 1 May 2009.

"Der englische Galilei: Thomas Harriot und die Entstehung der modernen Mechanik als Transformation kollektiven Wissens."
(1) *Kolloquium für Wissenschaftstheorie und Wissenschaftsgeschichte*, University of Bern, 15 December 2006.
(2) *Kolloquium für Wissenschafts- und Technikgeschichte*, Technische Universität Bergakademie Freiberg, 16 April 2007.

"Praktisches und theoretisches Wissen im 'Mohistischen Kanon' und der Vergleich mit der europäischen Tradition." *China-Workshop: Weltbilder und Technik*, International Center for Cultural and Technological Studies, Universität Stuttgart, 13 January 2006.

"Begriffswandel als Folge von Wissensintegration: Das Beispiel der begrifflichen Fassung des Phänomens der Schwere." *DFG-Rundgespräch "Begriffswandel – ein interdisziplinäres Kolloquium."* Akademie Sankelmark, Flensburg, 26 Oktober 2005.

"Shared Knowledge and Alternative Solutions in Harriot and Galileo's Work on Motion." *22nd International Congress for the History of Science*, Beijing, 26 July 2005.

"The English Galileo: Thomas Harriot and the Force of Shared Knowledge in Early Modern Mechanics."
(1) *Colloquium of the Program in the History of Science and Technology* at the University of Minnesota, 19 February 2004.
(2) *The Thomas Harriot Lecture*, Oxford University, 10 June 2004.
(3) *Colloquium of the Institute for History and Foundations of Science*, Universiteit Utrecht, 28 September 2006.

"The Sections on Mechanics in the 'Mohist Canon': Historical Issues." *3rd International Symposium on Ancient Chinese Books and Records of Science and Technology*, Universität Tübingen, 31 March 2003.

"Was Thomas Harriot an English Galileo? Harriot's Studies on Ballistics and the Fall of Bodies as an Example of Preclassical Mechanics." *The Thomas Harriot Seminar*, Durham University, 16 December 2002.

"England's Forgotten Galileo: A View on Thomas Harriot's Ballistic Parabolas." *Eurosymposium Galileo 2001*, Puerto de la Cruz, Tenerife, 22 February 2001.

"On the Relation of Mathematics and Physics in the Early Quantum Revolution." Workshop *Mathematics and Physics 1900–1930*, Mathematisches Forschungsinstitut Oberwolfach, 15 May 2000.

"Exploring the Limits of Classical Physics: Planck, Einstein, and the Structure of a Scientific Revolution." Together with Jochen Büttner and Jürgen Renn. Symposium "Max Planck and the Quantum". *The Boston Colloquium for the Philosophy and History of Science*, Boston University, 3 May 2000.

"Einsteins Alternativen: Fragen einer historischen Epistemologie am Beispiel der Entstehung der allgemeinen Relativitätstheorie." *Erstes interdisziplinäres Kolloquium zur Wissenschaftsgeschichte*, University of Hamburg, 5 January 2000.

"An Astronomical Road to General Relativity: The Prehistory of Karl Schwarzschild's Contribution." *5th International Conference on History and Foundations of General Relativity (HGR 5)*, University of Notre Dame, 9 July 1999.

Teaching

Lecture "Galilei und die »Erbsünde der modernen Naturwissenschaften«: Literarische und historische Perspektiven auf Wissenschaft und ihre Verantwortung [*Galileo and the Original Sin of the Modern Sciences: Literary and historical perspectives on science and its resonsibility*]" (together with Tom Kindt), Universität Hamburg, 12 May 2022.

Seminar (plus Practical course) "Liberal Arts and Sciences: Wissen und Gesellschaft [*Liberal Arts and Sciences: Knowledge and Society*]" (together with Franziska Kutzick), Universität Hamburg, summer term 2022.

Lecture series "The long-term history of the exact sciences: Concepts and examples for historical epistemology," Nankai University, Tianjin, spring 2022.

"Anthropocene class" (together with Pietro D. Omodeo and Giulia Rispoli), Università Ca' Foscari Venezia, April 2021.

Seminar "Political Epistemology" (together with Senthil Babu, Sascha Freyberg and Pietro D. Omodeo), Università Ca' Foscari Venezia, spring 2019.

Seminar "Geschichte des Raumbegriffs von der Antike bis in die Gegenwart in erkenntnistheoretischer Absicht [*History of the concept of space from antiquity to the present*]", Humboldt University of Berlin, summer term 2018.

Seminar "Das Verhältnis von Experiment und Metaphysik bei Edgar Wind [*Experiment and Metaphysics in Edgar Wind's Work*]" (together with Sascha Freyberg), Humboldt University of Berlin, winter term 2013/2014.

Seminar "Karten, Globen, Kosmographien und der Weltbildwandel um 1500 [*Maps, globes, cosmographies, and the change of world view around 1500*]" (together with Klaus Vogel and Günther Görz), Technical University of Berlin, winter term 2012/2013.

Seminar "Kants 'Metaphysische Anfangsgründe der Naturwissenschaft': Text und wissenschaftshistorischer Kontext [*Kant's 'Metaphysische Anfangsgründe der Naturwissenschaft': The text and its place in the history of science*]," Humboldt University of Berlin, winter term 2009/2010.

Seminar "Wissenschaftspopularisierung im 19. Jahrhundert [*Popularization of science in the 19th century*]" (together with Milena Wazeck), Humboldt University of Berlin, winter term 2008/2009.

Seminar “Eigenständige Tradition und Wissenstransfer: Die Geschichte der Wissenschaft in China [*Independent tradition and transfer of knowledge: The history of science in China*]” (together with Dagmar Schäfer), Humboldt University of Berlin, summer term 2008.

Seminar “Die Geschichte des Raumbegriffs von der Antike bis in die Gegenwart [*The history of the concept of space from antiquity to the present*],” visiting assistant professor at the University of Bern, spring term 2008.

Seminar “Im Grenzbereich von Wissenschaftsgeschichte und Wissenschaftstheorie: Fragen einer theoretischen Wissensgeschichte [*At the borders of history and philosophy of science: Questions of a history of knowledge*],” Humboldt University of Berlin, winter term 2007/2008.

Seminar “Die Entstehung einer Wissenschaft: Mechanik von der Antike bis in die frühe Neuzeit [*The emergence of a science: Mechanics from antiquity to the early modern period*],” visiting assistant professor at the University of Bern, winter term 2006/2007.

Seminar “Transformationen des Raumbegriffs: Die Geschichte der Vorstellungen vom physikalischen Raum von der Antike bis in die Gegenwart [*Transformations of the concept of space: The history of conceptions of physical space from antiquity to the present*],” Humboldt University of Berlin, winter term 2006/2007.

Seminar “Der Ursprung der Mechanik: von der Antike bis in die frühe Neuzeit [*The origin of mechanics: from antiquity to the early modern period*]” (together with Jochen Büttner), Technical University of Berlin, summer term 2003.

Assistance in preparation and realization of seminars “Alternativen in der Wissenschaftsgeschichte am Beispiel der Mechanik [*Alternatives in the history of science: the example of mechanics*]” and “Die Entstehung der Allgemeinen Relativitätstheorie [*The emergence of the theory of general relativity*]” by Prof. Dr. Jürgen Renn, Humboldt University of Berlin, winter term 1998/1999 and summer term 2002.