

MATTEO VALLERIANI

CURRICULUM VITAE

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BORN IN FERRARA, ITALY. JUNE 28, 1972

OVERVIEW

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FACTS

POSITION

| | |
|-------------------|--|
| 09/2017 – to date | Professor by Special Appointment Tel Aviv University |
| 09/2017 – to date | Honorary Professor in History of Science at the Technische Universität Berlin |
| 12/2011 – to date | Research Group Leader (W2) at the Max Planck Institute for the History of Science, Berlin |

PRESENT MAJOR PROJECTS

The Sphere: Knowledge System Evolution and the Shared Scientific Identity of Europe
2015 – to date, funded by MPIWG
<https://sphaera.mpiwg-berlin.mpg.de>
Principal Investigator

Machine Learning applied to the analysis of Early Modern corpora of European
university textbooks ("Images and Configurations in Corpora of University Textbooks")
January 2019 – to date, funded, by Bundesministerium für Bildung und Forschung
(BMBF)
<https://www.bifold.berlin/>
Principal Investigator

Development of mathematical models in the frame of network theory for the use in
History Writing (in collaboration with the research unit Nonlinear Dynamics and Time
Series Analysis, head by Prof. Dr. Holger Kantz, MPI for the Physics of Complex
Systems and TU Dresden)
Principal Investigator

Agora Infrastructure. Supporting Open Ecosystems for Data Science and AI
Innovation
March 2021–to date. Funded by BIFOLF, DFG and BMBF
<https://www.agora-ecosystem.com>
Speaker: Prof. Dr. Volker Markl
Affiliated Member

EDITORIAL WORK (CURRENT)

Editor-in-Chief of *Histories* (<https://www.mdpi.com/journal/histories>)

Member of the Scientific Committee of “SISFA Studies in the History of Physics and Astronomy” (<http://www.fedoabooks.unina.it/index.php/fedoapress/catalog/series/SISFA>)

Associate and Deputy Editor of *Humanities and Social Science Communications - Nature*

Editor-in-Chief of *SpringerBriefs in History of Science and Technology*, Springer Nature

Advisory Editor of the Journal *HOST*, DeGruyter

Editor of the Section “Natural Philosophy, Natural History and Technology” of the “Encyclopedia of Renaissance Philosophy” (Springer Nature)

Contributing Editor of the Journal *Technology and Culture*, Johns Hopkins University Press

EXHIBITIONS

- 2021 Leonardo’s intellectual Cosmos. Staatsbibliothek zu Berlin & MPIWG
(Co-Leader together with Jürgen Renn)
- 2016 Images don’t lie (?). University of Tel Aviv
(Project Leader)
- 2013 Archimede e la nascita della scienza in Europa. Musei Capitolini, Roma
(Member of the Curatorial Team).
- 2011 The Antichytera Mechanism
Max Planck Institute for the History of Science, Berlin
(Project Leader)
- 2007 Pratolino – The History of Science in a Garden
Virtual Exhibition in cooperation with the Ente Provincia of Florence
<http://pratolino.mpiwg-berlin.mpg.de>
(Project Leader)

- 2005 Einstein – Chief Engineer of the Universe (Berlin, 16.05.2005 – 30.09.2005)
Virtual Exhibition: Chief Engineer of the Universe
<http://www.einsteinausstellung.de>
University of Pavia (Italy), Dep. of Physics “A. Volta”
Travel Exhibition: Einstein ingegnere dell’universo
(Member of the Curatorial Team).

CONCEPTION AND REALIZATION OF INT. WORKSHOPS & CONFERENCES

- 06/2019–04/2022 Working Group: The Printers of the Early Modern Commentaries of the treatise *De sphaera* of Johannes Sacrobosco (together with Dr. Andrea Ottone)
Max Planck Institute for the History of Science, Berlin
- 04/2019 Workshop: What is a Table. A Machine-Learning Perspective
Max Planck Institute for the History of Science
- 10/2018 Conference (together with Prof. Dr. Giulia Giannini): The Epistemic Functions of Vision in Science
Università degli Studi di Bergamo & Max Planck Institute for the History of Science
Venue: Bergamo
- 06/2018 Workshop: Semantic Analysis of Historical Texts by Means of Tools from the Computational Linguistics
Max Planck Institute for the History of Science, Berlin
- 04/2018 Workshop: Multilayered Networks and Diffusion of Knowledge Innovations
Max Planck Institute for the History of Science
- 08/2017–02/2020 Working Group: The Authors of the Early Modern Commentaries of the treatise *De sphaera* of Johannes Sacrobosco
Max Planck Institute for the History of Science, Berlin
- 10/2017 Conference: The Mathematics Beyond Digital Humanities
University of Bucharest (together with Prof. Dana Jalobeanu)
- 11/2016 Workshop: Pragmatic and Practical Knowledge and Literature
Max Planck Institute for Legal History, Frankfurt
Max Planck Institute for the History of Science, Berlin (venue)
- 10/2012–03/2017 Working Group: The Structures of Practical Knowledge
Max Planck Institute for the History of Science, Berlin

- 10/2012 Conference (together with Prof. Dr. Jürgen Renn and Dr. Helge Wendt): The Globalization of Knowledge in the Mediterranean World of Post-Antiquity
Max Planck Institute for the History of Science, Berlin
- 09/2012–06/2012 Series of eleven international colloquia with the title “Practical Knowledge”
Max Planck Institute for the History of Science, Berlin
- 08/2012 Workshop: Aristotelisierung der Antike
Max Planck Institute for the History of Science, Berlin and in collaboration with the Excellence Cluster TOPOI, Berlin
- 12/2008 Workshop: The Patent System in Renaissance Italy: XV and XVI Centuries
Max Planck Institute for the History of Science, Berlin
- 2007 Workshop: The Reception of Hero’s Pneumatics during the XVI Century:
Giovannbattista della Porta
Max Planck Institute for the History of Science, Berlin in the frame of the project CRC 644: Transformations of Antiquity
- 2007 Galilean Lectures. Berlin Edition 2007
Max Planck Institute for the History of Science, Berlin in collaboration with the Museo Galileo, Florence
- 2006 Workshop: Transferring Technical Knowledge and Innovating in Europe, c.1200-
c.1800
CRC 644: Transformations of Antiquity
- 2001 Workshop: Shipbuilding Practice and Ship Design Methods from the Renaissance to
the XVIII Century
Max Planck Institute for the History of Science, Berlin (with Dirk Wintergrün)

AWARDS & MEMBERSHIPS

- 2022 - TO DATE Member of the Evaluation Board of the Centro Interuniversitário de História das Ciências e da Tecnologia
Lisbon, Portugal
- 2016–2018 PR-Officer of the European Society for the History of Science and Technology
- 2016–to date Member of the European Society for the History of Science
- 2015–2022 Member of the German National Committee of the Division of History of Science and Technology of the International Union of History and Philosophy of Science and Technology
- 2015–2022 Member of the Association “Friends of the Villa Vigoni”

- 2014 Elected Member of the Académie Internationale d'Histoire des Sciences, Paris
- 2014 Silverman Professorship. The Cohn Institute for History and Philosophy of Science and Ideas. University of Tel Aviv, Israel
- 2011 Paul-Bunge-Preis
Hans Jenemann Stiftung. Gesellschaft Deutscher Chemiker
- 2010 Marc-Auguste Pictet Prize
Société de Physique et d'Histoire Naturelle of Geneva
- 2007 International Museum Communication Award 2007 (3rd position) for the virtual Exhibition. Einstein – Ingenieur des Universums (co-author)
- 1998 Carlo D'Amelio Award in Philosophy of Science. Department of Philosophy of the University of Naples "Federico II"

LANGUAGES

English, German, Italian (Mother Tongue), scholastic French, basic Hebrew, Latin

VOLUNTARY WORK

- 11/2013-12/2016 Chief executive of the "Verein der Freunde des Goethe Gymnasiums Berlin e.V.," Berlin, Germany
- 11/2012–11/2013 Member of the Executive Committee of the "Verein der Freunde des Goethe Gymnasiums Berlin e.V.," Berlin, Germany
- 09/2008–03/2010 Chief executive of parent-teacher association "L'Angolino," supporting organization of the Italian-German Kindergarten "L'Angolino," Ansbacher Str. 41, 10777, Berlin, Germany

ACADEMIC RECORDS

POSITIONS, PROJECTS, AND EDUCATION

| | |
|-----------------|---|
| 11/2021 | Guest Professorship University of Milan, Italy |
| 2020 - TO DATE | Member of Faculty of the Graduate College of the Dept. of Historical Studies at the Università degli Studi di Milano |
| 2020 - TO DATE | Principal Investigator and Member of the Graduate College in BIFOLD “Berlin Institute for the Foundations of Learning and Data” (https://bifold.berlin) |
| 2019 - TO DATE | Principal Investigator “Images and Configurations in Corpora of University Textbooks”. “Berlin Institute for the Foundations of Learning and Data” (https://bifold.berlin). |
| 2019 - TO DATE | Professor by Special Appointment at the Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel. |
| 2017 | Nomination to Honorary Professorship in History of Science Technische Universität Berlin |
| 2017 | Guest professorship University of Bucharest, Romania |
| 2016–2022 | Elected Member of the German National Committee DHST-IUHPS |
| 2016 | Guest Professorship Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel. |
| 2015 | Guest Professorship Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel. |
| 01/2015–12/2018 | Principal Investigator. Project “From Technology to Science. Knowledge Transfer in Antiquity.” Area D-5. Excellence Cluster TOPOI, Berlin |
| 2014 | Silverman Professorship, Cohn Institute, University of Tel Aviv, Israel |
| 2012–2018 | Coordinator of the PhD candidates of Dept. 1 at the Max Planck Institute for the History of Science |
| 12/2011–to date | Research Group Leader (W2) at Dept. I at the Max Planck Institute for the History of Science in Berlin |
| 05/2011–12/2014 | Principal investigator “Water Management.” Area A-3. Excellence Cluster TOPOI, Berlin |

- 04/2011–11/2011 Permanent Research Fellow in Dept. I at the Max Planck Institute for the History of Science in Berlin.
- 02/2011 Call to a tenure track position in history of early modern science at Princeton University (declined)
- 01/2011–03/2011 Research Group Leader: CSG-III “Spread of Knowledge”, Excellence Cluster TOPOI, Berlin
- 2009 Visiting scholar at the Dept. of History of Science, Harvard University, Cambridge, USA (DAAD Fellowship)
- 2005–2011 Pre-doc (2005–2008) and Post-Doc (2009–2011) fellow at SFB 644 “Transformationen der Antike” (2005–2016)
- 2002–2008 PhD candidate at the Max Planck Institute for the History of Science, Berlin (*Disputatio*: Humboldt University, November 4, 2008: *Summa cum laude*)
- 09/2002 Summer school in the History of Science, Paris
- 05/2001 The 4th International Laboratory for the History of Science: *Art, Science and Techniques of Drafting in the Renaissance* (Florence and Vinci).
- 1998–2000 Project assistant at the Max Planck for the History of Science of Berlin
Project: History of Mechanics
- 1998 Scholarship at the University of Padua for post-graduated specialization
- 1997–1999 Free collaboration with Prof. Silvio Bergia, Department of Theoretical Physics of the University of Bologna
- 1997 University Degree at the University of Bologna in Philosophy of Science (110 cum laude/110), Prof. A. Artosi
- 1993 Course of study at the European School of Logic at the University of Constance

PUBLICATIONS

MONOGRAPHS

M. Valleriani, *Metallurgy, Ballistics and Epistemic Instruments. The «Nova scientia» of Nicolò Tartaglia*, Edition Open Access, Berlin, 2013.

M. Valleriani, *Galileo Engineer*, Boston Studies for the Philosophy and History of Science, Springer, Dordrecht, 2010.

EDITED VOLUMES

M. Valleriani, G. Giannini, E. Giannetto (eds.), *Scientific Visual Representations in History*, Springer, Cham, 2023, <https://doi.org/10.1007/978-3-031-11317-8>

M. Valleriani, A. Ottone (eds.), *Publishing Sacrobosco's «De sphaera» in Early Modern Europe. Modes of Material and Scientific Exchange*, Springer Nature, 2022. <https://doi.org/10.1007/978-3-030-86600-6>

M. Valleriani (ed.), *De Sphaera of Johannes de Sacrobosco in the Early Modern Period: The Authors of the Commentaries*, Springer Nature, 2020.

R. Feldhay, J. Renn, M. Valleriani, M. Schemmel (eds.), *Emergence and Expansion of Pre-Classical Mechanics*, Boston Studies, Springer Nature, 2018.

M. Valleriani (ed.), *The Structures of Practical Knowledge*, Springer, Dordrecht, 2017.

J. Renn, J. Staude, M. Valleriani (eds.), *Galilei und die Anderen. Hintergründe einer Revolution der Astronomie*, in *Sterne und Weltraum*, Dossier, 2009.

H. Nowacki, M. Valleriani, *Shipbuilding Practice and Ship Design Methods from the Renaissance to the 18th Century—a Workshop Report*, Preprint 245, MPIWG, 2003.

CATALOGUES

Renn, J., Valleriani, M., Hoffmann, S., Becchi, A. *Leonardos intellektueller Kosmos*, Giunti, Firenze, 2021

SPECIAL ISSUES

M. Valleriani (Guest ed.), *Appropriation and Transformation of Ancient Science*, Nuncius, 29, 2014.

PEER REVIEWED ARTICLES

Hassan El-Hajj, Oliver Eberle, Anika Merklein, Anna Siebold, Noga Shlomi, Jochen Büttner, Julius Martinetz, Klaus-Robert Müller, Grégoire Montavon, Matteo Valleriani. 2023. "Explainability and Transparency in the Realm of Digital Humanities: Toward a Historian XAI". In *International Journal for Digital Humanities*, 5, 299–331. <https://doi.org/10.1007/s42803-023-00070-1>

M. Zamani, H. El-Hajj, M. Vogl, H. Kantz and M. Valleriani. 2023. "A mathematical model for the process of accumulation of scientific knowledge in the early modern period". *Humanities and Social Sciences Communications*, 10, 533. <https://doi.org/10.1057/s41599-023-01947-w>

M. Valleriani, Malte Vogl, Hassan el-Hajj, and Kim Pham. 2022. "The Network of Early Modern Printers and Its Impact on the Evolution of Scientific Knowledge: Automatic Detection of Awareness Relations," in *Histories*, 2(4): 466–503. <https://doi.org/10.3390/histories2040033>

J. Büttner, J. Martinetz, H. El-Hajj, M. Valleriani. 2022. "CorDeep and the Sacrobosco Dataset: Detection of Visual Elements in Historical Documents". In *Journal of Imaging*, 8(10), 285. <https://doi.org/10.3390/jimaging8100285>

Anna Siebold and Matteo Valleriani. 2022. "Digital Perspectives in History," in *Histories*, 2(2): 170–177. <https://doi.org/10.3390/histories2020013>

M. Valleriani, "From the Quadrivium to Modern Science," in *HOST - Journal of History of Science and Technology*, 16(1), 2022, 121–132. <https://doi.org/10.2478/host-2022-0007>

El-Hajj, Hassan, Maryam Zamani, Jochen Büttner, Julius Martinetz, Oliver Eberle, Noga Shlomi, Anna Siebold, Grégoire Montavon, Klaus-Robert Müller, Holger Kantz, Matteo Valleriani. 2022. "An Ever-Expanding Humanities Knowledge Graph: The Sphaera Corpus at the Intersection of Humanities, Data Management, and Machine Learning." *Datenbank-Spektrum: Zeitschrift für Datenbanktechnologien und Information Retrieval*. <https://doi.org/10.1007/s13222-022-00414-1>

Valleriani, Matteo, Olya Nicolaeva, Beate Federau. "The hidden *Praeceptor*: How Georg Reticus Taught Geocentric Cosmology to Europe." *Perspectives on Science*, 30(3), 2022, 407–436. https://doi.org/10.1162/posc_a_00421

El-Hajj, Hassan, and Matteo Valleriani. 2021. "CIDOC2VEC: Extracting Information from Atomized CIDOC-CRM Humanities Knowledge Graphs." *Information* 12 (2021): 1–18. <https://doi.org/10.3390/info12120503>

Zamani, Maryam, Alejandro Tejedor, Malte Vogl, Florian Kräutli, Matteo Valleriani, Holger Kantz. "Evolution and Transformation of Scientific Knowledge: A Network Study." *Scientific Reports Nature*, 10, 2020, pp. 1–15. <https://doi.org/10.1038/s41598-020-76916-3>

Eberle, Oliver, Jochen Büttner, Florian Kräutli, Klaus-Robert Müller, Matteo Valleriani, Grégoire Montavon. "Building and Interpreting Deep Similarity Models." *IEEE Transactions on Patterns Analysis and Machine Intelligence*, 2020. <https://doi.org/10.1109/TPAMI.2020.3020738>

Valleriani, Matteo, Florian Kräutli, Maryam Zamani, Alejandro Tejedor, Christoph Sander, Malte Vogl, Sabine Bertram, Gesa Funke, and Holger Kantz. "The Emergence of Epistemic Communities in the Sphaera Corpus: Mechanisms of Knowledge Evolution." *Journal of Historical Network Research* 3 (2019): 50–91.

<https://doi.org/10.25517/jhnr.v3i1.63>

F. Kräutli, M. Valleriani, "CorpusTracer: A CIDOC Database for Tracing Knowledge Networks," in *Digital Scholarship in the Humanities*, 2017.

<https://doi.org/10.1093/llc/fqx047>

M. Valleriani, "Ancient Pneumatics Transformed during the Early Modern Period," in *Nuncius*, 29, 2014, 127–173.

M. Valleriani, "Galileo's Abandoned Project on Acoustic Instruments at the Medici Court," in *History of Science*, 50, 1, 2012, 1–31.

M. Valleriani, "The transformation of Aristotle's «Mechanical Questions.» A bridge between the Italian Renaissance Architects and Galileo's First New Science," in *Annals of Science*, 66, 2, 2009, 183–208.

M. Valleriani, "Galileo in the Role of the Caster's Assistant: The 1634 Bell of the «Torre del Mangia» in Siena," in *Galilaeana*, V, 2008, 89–112.

J. Renn, M. Valleriani, "Galileo and the Challenge of the Arsenal," in *Nuncius*, 16, 2, 2001, 481–503.

S. Bergia, M. Valleriani, "Relatività ristretta: convenzione o nuova concezione del mondo?," in *Giornale di Fisica*, 39, 4, 1998, 199–221.

OTHER ARTICLES

Eberle, Oliver, Jochen Büttner, Hassan El-Hajj, Grégoire Montavon, Klaus-Robert Müller and Matteo Valleriani. 2023. Insightful analysis of historical sources at scales beyond human capabilities using unsupervised Machine Learning and XAI. ArXiv.

<https://doi.org/10.48550/arXiv.2310.09091>

M. Valleriani. 2023. "Studi storici con l'IA: verso le Digital Humanities". in *Agenda digitale*, <https://www.agendadigitale.eu/cultura-digitale/studi-storici-con-lia-verso-le-digital-humanities/>

M. Valleriani, "Math is Revolutionising the Study of History. Here is how". In *The Conversation*, 2018 (<https://theconversation.com/math-is-revolutionising-the-study-of-history-heres-how-85710>)

M. Valleriani, "Israel and Europe: Building Bridges via the History of Science," in *Centaurus*, 59, 2017, 160–165.

M. Valleriani, "Der Weg zu den «neuen Wissenschaften»,," in *Physik Journal*, 13, 2014, 43–46.

CONTRIBUTIONS TO EDITED VOLUMES

Hassan El-Hajj and Matteo Valleriani. 2023. "Prompt me a Dataset: An investigation of text-image prompting for historical image dataset creation using foundation models", in *Image Analysis and Processing - ICIAP 2023*, ed. by Gian Luca Foresti, Andrea Fusiello and Edwin Hancock, 247–257. Cham: Springer: https://doi.org/10.1007/978-3-031-51026-7_22

M. Valleriani, "The Mechanics of the Heart in the Hellenistic Period," in *The Body as Machine in Antiquity*, ed. by M. Gerolemou and G. Kazantzidis, Cambridge University Press, 2023, 245–261

Valleriani, Matteo, Florian Kräutli, Daan Lockhorst and Noga Shlomi. 2023. "Vision on Vision: Defining Similarities Among Early Modern Illustrations on Cosmology." In *Scientific Visual Representations in History*, eds. Matteo Valleriani, Giulia Giannini and Enrico Giannetto, 99–137. Cham: Springer. https://doi.org/10.1007/978-3-031-11317-8_4

M. Valleriani, A. Ottone, "Printers, Publishers, and Sellers: Actors in the Process of Consolidation of Epistemic Communities in the Early Modern Academic World." In M. Valleriani and A. Ottone (eds.), *Publishing Sacrobosco's «De sphaera» in Early Modern Europe. Modes of Material and Scientific Exchange*, Springer Nature, 2022, 1–23. https://doi.org/10.1007/978-3-030-86600-6_1

M. Valleriani, C. Sander, "Paratexts, Printers, and Publishers: Book Production in Social Context." In M. Valleriani and A. Ottone (eds.), *Publishing Sacrobosco's «De sphaera» in Early Modern Europe. Modes of Material and Scientific Exchange*, Springer Nature, 2022, 337–367. https://doi.org/10.1007/978-3-030-86600-6_10

M. Valleriani, F. Kräutli, "The Necessity of Linked Data *alias* Thinking Big in Computational History." In *Proceedings zum «Repertorium Academicum Germanicum»*, ed. by R. Schwinges und K. Gubler, vdf Hochschulverlag AG, 2022, 171–191.

Kräutli, Florian, Esther Chen, and Matteo Valleriani. "Linked Data Strategies for Conserving Digital Research Outputs." In *Information and Knowledge Organisation in Digital Humanities*, ed. by Koraljka Golub and Ying-Hsang Liu, Routledge, 2021, 206–24.

Valleriani, Matteo. "Structure and Epistemology of the Practical Knowledge of the Venetian Arsenal." In *Les Ingénieurs, des Intermédiaires? Transmission et coopération à l'épreuve du terrain (Europe, XV–XVIII siècle)*, ed. by Stéphane Blond, Liliane Hilaire-Pérez, Valérie Nègre and Michèle Virol, Presses Universitaires du Midi, 2021, 31–52.

M. Valleriani, "The Thirsty but Educated Iberian Peninsula. As a Means of Introduction." In *The History of Water Management in the Iberian Peninsula Between the 16th and the 19th Century*, ed. by A. Duarte Rodriguez and C. Toribio, Springer Nature, 2020, V–XI.

M. Valleriani, F. Kräutli, D. Lockhorst, N. Shlomi, "Vision on Vision: Defining Similarities Among Early Modern Illustrations on Cosmology." In *Scientific Visual Representations in History* ed. by M. Valleriani, G. Giannini, E. Giannetto, Springer, Cham, 2023, 99–137. https://doi.org/10.1007/978-3-031-11317-8_4

M. Valleriani, "Prolegomena to the Study of Early Modern Commentators on Johannes de Sacrobosco's Tractatus de sphaera," in *De Sphaera of Johannes de Sacrobosco in the Early Modern Period: The Authors of the Commentaries*, ed. by M. Valleriani, Springer Nature, 2020, 1–23.

M. Valleriani, N. Citron, "The World of Konrad Tockler," in *De Sphaera of Johannes de Sacrobosco in the Early Modern Period: The Authors of the Commentaries*, ed. by M. Valleriani, Springer Nature, 2020, 111–36.

M. Valleriani, "The Epistemology of Practical Knowledge," in *The Structures of Practical Knowledge*, ed. by M. Valleriani, Springer, Dordrecht, 2017, 1–19.

M. Valleriani, "The Tracts on The Sphere. Knowledge Reconstruct over a Network," in *The Structures of Practical Knowledge*, ed. by M. Valleriani, Springer, Dordrecht, 2017, 421–473.

M. Valleriani, "Forms and Functions of Codification of Knowledge: An Example from the Work of Joseph Furttentbach," in *Special Issue of Zeitsprünge - Studies in Early Modern History, Culture, and Science*, ed. by H. Roller and J. Lazardzig, 2016, 457–469.

S. M. Keiser, M. Valleriani, "The Organ of the Villa d'Este in Tivoli and the Standards of Pneumatic Engineering in the Renaissance," in *Gardens, Knowledge and the Science in the Early Modern Period*, ed. by V. Remmert and J. Wolschke-Bulmahn, Birkhäuser, Basel, 2016, 1–26.

M. Valleriani, "Hydrostatics and Pneumatics in Antiquity," in *A Companion to Science, Technology, and Medicine in Ancient Greece and Rome*, ed. by Georgia L. Irby, Wiley-Blackwell, 2 Voll, 2016, Vol. 1, 145–160.

J. Renn, D. Wintergrün, R. Lalli, M. Laubichler, M. Valleriani, "Netzwerke als Wissensspeicher," in *Die Zukunft der Wissensspeicher. Forschen, Sammeln und Vermitteln im 21. Jahrhundert*, ed. by J. Mittelstraß und U. Rüdiger, UVK, 2016, 35–80.

J. Renn, M. Valleriani, "Elemente einer Wissensgeschichte der Architektur," in *Wissensgeschichte der Architektur*, ed. by Jürgen Renn, Wilhelm Osthaus, Hermann Schlimme, Edition Open Access, Berlin, 3 Voll, 2014, I, 7–54.

M. Valleriani, "Agostino Ramelli as Recipient of a New Science of Ballistics," in *Mapping Spaces. The Influence of Early Modern Science on 17th Century Landscape Painting*, ZKM Museum of Contemporary Art, Karlsruhe, 2014, 318–323.

M. Valleriani, "La natura pratica del Trattato della Sfera di Galileo Galilei," in *Tintenfass and Teleskop*, ed. by A. Albrecht, G. Cordibella and V. Remmert, DeGruyter, Berlin, 2014, 321–335.

M. Valleriani, "Sixteenth Century Hydraulic Engineers and the Emergence of Empiricism," in *Conflicting Values of Inquiry: Ideologies of Epistemology in Early Modern Europe*, ed. by T. Demeter, K. Murphy and C. Zittel, Brill, Leiden, 2014, 41–68.

M. Valleriani, "Technisches Wissen," in *Der Neue Pauly Supplemente Band 9, Renaissance Humanismus*, ed. by Manfred Landfester, Verlag J. B. Metzler Stuttgart Weimar, 2014, 954–962.

M. Valleriani, "Weight and Resistance," in *Matters of Weight: Force, Gravity and Aesthetics in the Early Modern Period*, ed. by D. Kim, Edition Imorde, Berlin, 2013, 37–50.

M. Valleriani, "Archimedes Hydrostatics in the Work of Nicolò Tartaglia," in *Archimedes: the Art and Science of Invention. Rome, Musei Capitolini, May 31, 2013 – January 12, 2014*, ed. by G. di Pasquale, C. Parisi Presicce, Giunti, Florence, 2013, 160–163.

M. Valleriani, "L'idrostatica di Archimede nell'opera di Nicolò Tartaglia," in *Archimede: arte e scienza dell'invenzione. Roma, Musei Capitolini, 31 maggio 2013 – 12 gennaio 2014*, ed. by G. di Pasquale, C. Parisi Presicce, Giunti, Firenze, 2013, 160–163.

M. Valleriani, "L'esperienza e la nascita della balistica all'inizio dell'età moderna," in *La scienza delle armi. Luigi Fernando Marsili 1658–1730*, a cura del Museo di Palazzo Poggi, Pendragon, Bologna, 2012, 93–108.

M. Valleriani, "Knowledge Agora: The Role Of The Officials," in *Cultures of Knowledge. Technology in Chinese History*, ed. by D. Schäfer, Brill, 2011, 233–249.

M. Valleriani, "The Garden of Pratolino: Ancient Technology Breaks Through Modern Iconology's Barriers," in *Ludi Naturae. Transformations of an Ancient Topos in Science and Art*, ed. by H. Böhme, R. Felfe, N. Adamowski, Fink Verlag, 2011, 121-142.

M. Valleriani, "The War in Ariosto's «Orlando Furioso.» Snap-Shot of The Passage From Medieval to Early Modern Technology," in *War in Words*, ed. by M. Formisano and H. Böhme, DeGruyter, Berlin, 2010, 375-390.

M. Valleriani, "Il ruolo della pneumatica antica durante il Rinascimento: l'esempio dell'organo idraulico nel giardino di Pratolino," in *La civiltà delle acque dal Medioevo al Rinascimento*, ed. by A. Calzona and D. Lamberini, series «Ingenium», Olschki, Florence, 2010, 2 vols, vol. 2, 613-632.

M. Valleriani, "Der Garten von Pratolino," in *Wunderforschung. Catalogue of the exhibition Wunderforschung*, ed. by K. Bödecker and C. Hammer, Nicolai Verlag, Berlin, 2010, 95-102.

M. Valleriani, "Galileis astronomische Werkstatt," in *Sterne und Weltraum*, 2, 2009, 42-51.

Valleriani, "Galilei, Galileo: Dialogo di Galileo Galilei linceo matematico straordinario dello studio di Pisa e filosofo e matematico primario del Serenissimo Gr. Duca di Toscana" in *Kindlers Literatur Lexikon Vol. 6*, ed. by H. L. Arnold, Metzler, Stuttgart, 2009, 3rd edition, 49-50.

M. Valleriani, "The Transformation and Reconstruction of Hero of Alexandria's «Pneumatics» in the Garden of Pratolino," in *Pratolino: A Mith at the Gates of Florence*, ed. by L. Ulivieri and S. Merendonì, Marsilio, Venezia, 2008, 155-182.

M. Valleriani, "From Condensation to Compression: How Renaissance Italian Engineers Approached Hero's Pneumatics," in *Übersetzung und Transformation*, ed. by H. Böhme, C. Rapp, W. Rösler, DeGruyter, 2007, 333-354.

Renn, F. Bevilacqua (eds.), *Albert Einstein. Ingegnere dell'universo*, Skirà, 2005. (co-author)

J. Renn (ed.), *Albert Einstein, Chief Engineer of the Universe, Dokumente eines Lebensweges*, Wiley-VCH, 2005. (co-author)

M. Valleriani, "A View on Galileo's Ricordi Autografi. Galileo Practitioner in Padua," in *Largo Campo di Filosofare. Euro Symposium Galileo, 2001*, ed. by J. Montesinos and C. Solís, Fundación Canaria Orotava de Historia de la Ciencia, 2001, 281-292.

M. Valleriani, "Some Episodes of the Hidden History of a non Traditional Interpretation of the Theory of General Relativity," in *Atti del XVIII Congresso di Storia della Fisica e dell'Astronomia*, Como, 1999, Proceedings.

OTHERS

Transcription of Oreste Vannoccio Biringuccio, "Libro degli artificii spiritali," 1582, in ECHO (<http://echo.mpiwg-berlin.mpg.de/content/historymechanics/siena>), 2006.

REVIEWS

Stefano Gattei, *On the Life of Galileo: Viviani's Historical Account and other Early Biographies*, Princeton University Press, 2019 in *Metascience*, 2021.
<https://doi.org/10.1007/s11016-020-00601-4>

Pietro Greco, *Galileo Galilei. The Tuscan Artist*, Springer Nature, 2018 in *Isis*, 111 (4): 878–879.

Leslie Tomory. *The History of the London Water Industry, 1580–1820*, Johns Hopkins University Press, Baltimore, 2017 in *Isis*, 2018, 109, 4, 838–839.

Horst Bredekamp, *Galileis denkende Hand. Galileo's O. Vol. 4*. DeGruyter, 2014 in *Historische Zeitschrift*, 2017, Vol. 304, 231–233.

Lawrence Lipking, *What Galileo Saw. Imagining the Scientific Revolution*, Cornell University Press, Ithaca, 2014 in *The American Historical Review*, 2016, Vol. 121, 2, 637–638.

Paolo Galluzzi, «Libertà di filosofare in naturalibus». *I mondi paralleli di Cesi e Galileo, Scienze e Lettere*. Editore commerciale, Roma, 2014 in *Isis*, 2015, 106, 4, 919–920.

Alan C. Bowen, *Simplicius on the Planets and Their Motions: In Defense of a Heresy*, Brill Academic Publishers, 2012 in *Isis*, 106, 2015, 1, 170–171.

M. Bucciardini, M. Camerota, and F. Giudice, *Il telescopio di Galileo: Una storia europea*, Giulio Einaudi editore, 2012 in *Isis*, 105, 2014, 431–432.

M. A. Peterson, *Galileo's Muse*, Harvard University Press, 2012 in *Isis*, 104, 2013, 837–838.

V. Maraglino, *Scienza antica in età moderna. Teoria e Immagini*, Cacucci Editore, 2012, in *Aestimatio – Princeton*, 10, 2013.

J. Dougal Fleming (ed.), *The Invention of Discovery, 1500 – 1700*, Ashgate, 2011, in *Isis*, 103, 3, 2012, 588–589.

P. Galluzzi, *Tra atomi e indivisibili, Olschki*, Firenze, 2011 in *Studia leibnitiana*, 43, 3, 2013, 590–591.

J. L. Heilbron, *Galileo*, Oxford University Press, 2010 in *The British Journal for the History of Science*, 44, 4, 163, 2011, 590–591.

Mariska Leunissen, *Explanation and Teleology in Aristotle's Science of Nature*, Cambridge, Cambridge University Press, 2010 in *Centaurus*, 53, 4, 2011, 338–340.

David Wootton, *Galileo Watcher of the Sky*, Yale University Press, 2010 in *Reviews in History*. Peer reviewed Online Journal of the Institute of Historical Research of the School of Advanced Study – University of London, 2011.

TEACHING

| | |
|-----------------------------------|--|
| 2024 | Visionen künstlicher Intelligenz im Spielfilm (1927-1968) Technische Universität Berlin |
| 2023 | Geschichte der Künstlichen Intelligenz Technische Universität Berlin |
| 2022 | Das Quadrivium im Spätmittelalter Technische Universität Berlin |
| 2021 | Leonardos intellektueller Kosmos Technische Universität Berlin |
| 2020–2021 | Isaac Newton, der Alchemist Technische Universität Berlin |
| 2020 (February - Blockseminar) | Die wissenschaftlichen Errungenschaften Robert Boyles aus der Perspektive seiner Korrespondenz: eine rechnergestützte Analyse seiner Korrespondenz Technische Universität Berlin |
| 2019 (Nov. and Dec.) | The Impact of Scientific Press on Scientific Culture in the Early Modern Period Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel |
| 2018–2019 | Die Strukturen praktischen Wissens Technische Universität Berlin |
| 2018 | Das aristotelische Weltbild. Die Lektüre von Aristoteles <i>De coelo</i> Technische Universität Berlin |
| 2017 | Nachbau der ersten Personenwaage - die Materialität der frühneuzeitlichen statischen Medizin Technische Universität Berlin (Together with Teresa Hollerbach) |
| 2017 | Visual Material as Epistemic Vehicle in Science University of Bucharest |
| 2017 | Galileo Galileis <i>Il Saggiatore</i> Technische Universität Berlin |
| 2016 | Images of Early Modern Science Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel |
| 2016 | Kodifikation und Strukturen Praktischen Wissens der Frühneuzeit Technische Universität Berlin |

- 2015–2016 Die geozentrische Welt. Die wissenschaftliche Identität Europas zwischen Spätmittelalter und Früher Neuzeit
Technische Universität Berlin
- 2015 Network and Identity. The Shared Scientific Knowledge Shaping Europe from the End of the Middle Ages.
Cohn Institute for the History and Philosophy of Science and Ideas. University of Tel Aviv, Israel
- 2014–2015 Die Entstehung der frühneuzeitlichen Mechanik
Technische Universität Berlin
- 2014 The Emergence of Science in the Early Modern Period
Silverman Professorship – Advanced Seminar, Cohn Institute, University of Tel Aviv, Israel
- 2013–2014 Antike Hydrostatik und Pneumatik: Entstehungs- und Diffusionsprozesse, Technische Universität, Berlin
- 2011 Technologie und Geometrie: die frühneuzeitliche Revolution der Kriegskunst,
Technische Universität, Berlin
- 2010–2011 Das Experiment: eine Reise in den wissenschaftlichen Salon Robert Boyles,
Technische Universität Berlin
- 09/2010 Summer School: Museo Leonardiano, Vinci, Italy
- 2010 Galileo Galilei: die frühneuzeitliche Wissenschaft und ihr Kontext
Technische Universität Berlin
- 2010 Konzeptionen antiker Wissenschaft
Technische Universität, Berlin
- 2007 Antike Wissenschaft und technologische Entwicklung in der Literatur der frühen Neuzeit. Das Beispiel der Hofliteratur im 16. Jahrhundert: Ariostos Orlando Furioso,
Humboldt Universität Berlin

SUPERVISION

DISSERTATIONS

- 2024-to date
Zekun Song
AI models for unsupervised identification and classification of semantic relations among ancient scientific texts
Technische Universität Berlin
Prof. Dr. Klaus-Robert Müller, Prof. Dr. Matteo Valleriani
- 2023-to date
Julius Martinetz
Historical Reasoning and Explainable Artificial Intelligence (preliminary title)
Technische Universität Berlin
Prof. Dr. Klaus-Robert Müller, Prof. Dr. Matteo Valleriani
- 2023-to date
Nana A. Citron
Epistemic Everyday Life: A Feminist Analysis of Germany's Early Modern Printing Business
University of Oslo
Prof. Dr. Matteo Valleriani, Prof. Marius Buning
- 2020-to date
Noga Shlomi
The Evolution of Scientific Visual Language in the Early Modern Period: A Machine-Learning-Based Analysis
Tel Aviv University
Prof. Yoseph Schwartz, Prof. Dr. Matteo Valleriani
- 2020-to date
Anna Siebold
Measuring, Calculating, Modelling History. Characteristics and Ideals of Data-Driven Research
Carl von Ossietzky Universität Oldenburg
Prof. Dr. Thomas Etzemüller, Prof. Dr. Peter Geimer, Prof. Dr. Matteo Valleriani
- 2016 – 2020
Teresa Hollerbach
Sanctorius Reconsidered: A New Look on the Origins of Quantification in Medicine
Prof. Dr. Friedrich Steinle, Prof. Dr. Matteo Valleriani
Technische Universität Berlin
- 2015–2018
Dagmar Mrozik
The Jesuit Science Network
Prof. Dr. Volker Remmert, Prof. Dr. Matteo Valleriani
Universität Wuppertal
<http://jesuitscience.net>

MA THESES

- 2021–2022
Nana A. Citron
The Relationship Between Volvelles and Astronomic Instruments (preliminary title)
Technische Universität Berlin

- 2021–2022 Beate Federau
Exploring Networks of Texts in the Early Modern Printing History of Sacrobosco's *Tractatus de Sphaera*
Technische Universität Berlin, Fak. 1
- 2020 Stephan Tietz
Building and Explaining Invariances in Deep Similarity
Technische Universität Berlin, Fak. 4
- 2019–2020 Katharina Litke
Die humanistische Bearbeitung eines mittelalterlichen Traktats im 16. Jahrhundert –
Élie Vinet *scholia* zur *Sphaera* des Johannes de Sacrobosco
Freie Universität Berlin, Inst. Class. Philology
- 2018–2019 Noga Shlomi
The Tacuinum sanitatis: changes in traditions of collecting, organizing and
representing medical knowledge in the late Middle Ages
Tel Aviv University, Cohn Inst.
Awarded with the Funkenstein Prize
- 2018 Sebastian Gießel
Zur technikhistorischen Analyse von Innovationen im Schiffbau: Die Rolle der
Verenidgen Oostindischen Compagnie (VOC) als Akteur der Technikgenese in den
Niederlanden
Technische Universität Berlin, Fak. 1
- 2017 Zvi Hasnes Beninson
Statistical Considerations for Rethinking the Historiography of Ancient Greek
Astronomy
The University of Tel Aviv, Cohn Inst.
Awarded with the Funkenstein Prize
- 2016 Teresa Hollerbach
Sanctorius Sanctorius: His work "De statica medicina"
and its social context
Technische Universität Berlin, Fak. 1

BA THESES

- 2024 Anika Merklein
Machine learning-based analysis of visual structural elements of ancient books
Technische Universität Berlin, Fak. 4
- 2022 Zahra Salmanivaloujaei
Weak Supervision for NER Fine-Tuning using Astronomy Book Indices in Historical
Persian
Technische Universität Berlin, Fak. 4
- 2020 Christoph Pawell
Kosmas Indikopleustes—Weltbild im Kontext
Technische Universität Berlin, Fak. 1

- 2019 Nana A. Citron
Wissenspopularisierung im Spätmittelalter: Die Deutsche Sphaera Konrads von
Megenberg
Technische Universität Berlin, Fak. 1
- 2014 Julia Jäggle
Il Mappamondo Catalano Estense – zwischen Kunst und Wissenschaft: Die
Katalanische Weltkarte als Beispiel für die hybride Ausbildung der mallorquinischen
Kartographen
Technische Universität Berlin, Fak. 1 (Kunstwiss,)
- 2013 Anna I. Siebold
Die Insecten-Belustigung von August Johann Rösel von Rosenhof: Ein Kunstwerk für
die Entomologie
Technische Universität Berlin, Fak. 1 (Kunstwiss.)

RADIO, TV AND WEB APPEARANCES

- DEC. 2, 2023
Feature: Galileo Galilei erwacht zu neuem Leben: Eine zeitlose Begegnung mit dem Genie der Vergangenheit". On "Galileo", ProSieben, December 2, 2023. <https://youtu.be/YIKC-OAkcFA?si=xvMBEYZBqMbmwXOy>
- DEC. 20, 2023
Feature: KI in der Geschichtswissenschaft
Deutschlandfunk Kultur
<https://www.deutschlandfunkkultur.de/ki-in-der-geschichtswissenschaft-dlf-kultur-07d4d267-100.html>
- MAY 23, 2023
Feature: KI: Wie Algorithmen bei Erkenntnissen über die Vergangenheit helfen können
Deutschlandfunk Kultur
https://share.deutschlandradio.de/dlf-audiothek-audio-teilen.html?audio_id=dira_DRK_30faa548
- SEPT. 27, 2022
Interview: How Does the Homogenization of Scientific Knowledge Occur?
Latest Thinking
<https://lt.org/publication/how-does-homogenization-scientific-knowledge-occur>
- JULY 14, 2021
Zeitfragen: Digital History. Mit Algorithmen die europäische Wissenschaftsgeschichte erforschen
Radio Interview, Deutschlandfunk Kultur
https://www.deutschlandfunkkultur.de/digital-history-mit-algorithmen-die-europaeische.976.de.html?dram:article_id=500218
- MAY 12, 2021
Zeitfragen: Das Genie in seiner Zeit. Leonardos Bücherliste
Radio Interview (together with Jürgen Renn), Deutschland Funk Kultur
https://www.deutschlandfunkkultur.de/das-genie-in-seiner-zeit-leonardos-buecherliste.976.de.html?dram:article_id=497106
- FEB. 15, 2014
Galileo Galilei: Vom gefeierten Multitalent zum Ketzer
TV Interview, ORF Austria
<https://orf.at/v2/stories/2217762/2217760/>
- SEPT. 12, 2012
Projekt Zukunft: Im Gespräch: Dr. Matteo Valleriani zum keltischen Mondkalender
TV Interview, Deutsche Welle
<https://www.dw.com/de/im-gespräch-dr-matteo-valleriani-zum-keltischen-mondkalender/av-16012664>

RELEVANT LECTURES

add Oxford, Padova, Paris, Heibrids (Einstein center)

- 01/2024
The Relation between Micro and Macro History
MPI für Mathematik in den Naturwissenschaften
Leipzig
- 10/2023
Invited lecture: The Experiments in Galileo's "Saggiatore"
Venue: Celebration for the 500 years from the publication of Galileo's Saggiatore,
University of Beijing, China
- 09/2023
Invited lecture: From Data Management to Explainable Artificial Intelligence
Venue: University of Oslo
Organizer: Marius Buning
- 09/2023
Invited Lecture: When the time was ripe to publish Copernicus: a view of the
European intellectual context of the first half of the 16th century
Venue: SISFA National Congress
Organizers: Department of Physics and Astronomy of the University of Padua and
the INAF-Astronomical Observatory of Padua
- 07/2023
Invited lecture: Rich data: heterogeneity, lack of annotations, high dimensionality.
The challenge from the humanities
Venue: Beyond Deep Learning. Perspectives on AI. IDIAP, Martigny, Switzerland
Organizer: Andre Freitas
- 06/2023
Invited lecture: Is it possible to quantify historical temporality?
Venue: Séminaire romand d'histoire des sciences et des techniques
University of Neuchâtel
Organizers: Jérôme Baudry (EPFL), Harro Maas (Unil), Bruno Strasser (Unige),
Gianenrico Bernansconi (Unine)
- 05/2023
Invited lecture: What does Artificial Intelligence think about early modern
mathematical instruments?
Venue: Writing the History of Scientific Instruments: State of the Art and Future
Perspectives
Organizer: Hans R. Jenemann foundation
- 04/2023
Invited lecture: What is a Machine?
Venue: The Lure of the Machine in the Medieval and Early Modern Centuries
Princeton University
Organizer: Pamela Long
- 01/2023
Invited lecture: Explainable Artificial Intelligence as Historian
Venue: Explainable AI for the Sciences: Towards Novel Insights
Institute for Pure and Applied Mathematics (IPAM)
UCLA - Los Angeles - Usa

- 09/2022
Keynote lecture: A Hypothesis on the Origins of the Force Pump
Venue: Final Conference AQUA Project
University of Lisbon
Organizer: Ana Rodriguez
- 09/2022
Invited Lecture: *De ortu poetico* e il metodo per datare la storia antica
Venue: XI Seminario sulla storia antica e la sua tradizione
Gargnano - University of Milan
Organizer: Elio Nenci
- 12/2021
Distinguished lecture: From the Quadrivium to Modern Science
Venue: 5th CIUHCT Distinguished Lecture
University of Lisbon, Portugal
- 08/2021
Invited lecture: The Academic Book Market in the Field of Astronomy: Local and Global Rules
Venue: Equating the Heavens: Astronomical Practice, Computation, and Instruments of Planetary Theory in Early Modern Europe
Astronomisch-Physikalisches Kabinett (Museumslandschaft Hessen Kassel) & Mathematisch-Physikalischer Salon (Staatliche Kunstsammlungen Dresden) in cooperation with ALFA—Shaping a European Scientific Scene: Alfonsine Astronomy (ERC/CRNS), Paris
- 02/2021
Keynote Lecture: Atomization and Recomposition: A Machine-learning and Mathematical Approach to the History of Cosmology
Venue: Prosthetic Embodiment and Cognition in Classical Antiquity and Beyond
Humboldt Universität zu Berlin
- 10/2020
Keynote Lecture:
Early Modern University Textbooks: How to Gain Hegemony
Venue: Networks of Manuscripts, Networks of Texts
University of Amsterdam
Organizer: Evina Steinova
- 03/2020
Invited lecture: The Sphere. Knowledge System Evolution and the Shared Scientific Identity of Europe
Venue: Digital Humanities - Artificial Intelligence Seminar
École normale supérieure. Paris, France
- 01/2020
Invited lecture: Detecting Epistemic Communities in Early Modern Treatises on Cosmology.
Venue: Computational History of Ideas: Issues and Directions. A Digital Humanities Symposium.
University of Groningen, The Netherlands
- 01/2020
Institute Colloquium: The Mathematical Formalization of the Historical Disciplines: The Evolution of Cosmology in The Early Modern Period.
Max Planck Institute for the History of Science, Berlin
Germany
- 12/2019
Invited Lecture: Detecting Epistemic Communities in the Frame of Early Modern Cosmology: A Research in Computational History
Ben Gurion University
Be'er sheva, Israel

- 12/2019 Invited Lecture: Detecting Epistemic Communities in the Frame of Early Modern Cosmology: A Research in Computational History
Cohn Institute for the History and Philosophy of Science and Ideas
Tel Aviv University, Israel
- 10/2019 Invited lecture: Ship and Fleet: Two Different Sorts of Machines at the Venetian Arsenal
Annual Meeting of the Society for the History of Technology
2019 Milan Edition
Session Organizer: Pamela Long
- 10/2019 Invited lecture: Das astronomische Wissen und seine Tradition als Kopernikus' Werk erschien
Conference: RAG - Repertorium Academicum Germanicum. Personen und Wissen. Bilanz und Perspektiven
Münchenwiler, Switzerland
Organizer: Prof. Dr. Rainer C. Schwinges
Bern Universität
- 09/2019 Invited Lecture: Detecting Epistemic Communities in the Frame of Early Modern Cosmology: A Research in Computational History
University of Venice, Italy
- 09/2019 Invited lecture: La meccanica del cuore
Bi-Annual Meeting of Gargnano on Ancient History of Science
Organizer: Elio Nenci
Università Statale di Milano
- 06/2019 Invited Opening Lecture: Computational History: Terra incognita.
Scientiae 2019 - Belfast
- 03/2019 Keynote: Mathematically Hardcoded Historical Reasoning: Is it Relevant for the Development of Artificial Intelligence?
Conference: From Automata to Robotics
University of Lisbon, Portugal
- 02/2019 Invited Lecture: The Sphere. A Multilayer Approach to Knowledge Evolution in History
Max Planck Institut for the Physics of Complex Systems, Dresden, Germany
- 02/2019 Invited Lecture: The Role and the Limits of Social Network Analysis in Computational History
Mitchell Center
University of Manchester
- 11/2018 Invited lecture: The Role of Languages in the Process of Diffusion of Knowledge Innovation in the Early Modern Period
Ludwig Boltzmann Institute for Neo-Latin Studies
University of Innsbruck

- 10/2018
Talk: Vision on Vision: Early Modern Scientific Images on Cosmology Explored by Means of Second Order Images (together with Florian Kräutli)
Conference: The Epistemic Functions of Vision in Science (Matteo Valleriani & Giulia Giannini)
Max Planck Institute for the History of Science & Università degli Studi di Bergamo (venue)
- 09/2018
Talk: *Musica mundana*: Cosmic Harmony between Universities and Publishers
Workshop: Sound Objects in Flux: Knowledge, Science, Heritage (Viktoria Tkaczyk, Rebecca Wolf, Leendert van der Miesen)
Max Planck Institute for the History of Science
- 04/2018
Invited lecture: The Epistemic Function of the "Theatres of Machines"
Workshop: New Approaches to Preindustrial Technology: Bodies, Minds, and Machines (Paola Bertucci)
Yale University, USA
- 04/2018
Session: Calculating Knowledge: What Your Project Needs to Fully Benefit from Digital Humanities (Organizer together with Angela Dressen)
Annual Meeting of the Renaissance Society of America, New Orleans
- 02/2018
The Sphere. Knowledge System Evolution and the Shared Identity of Europe. Launch of the Database online
Max Planck Institute for the History of Science
- 12/2017
Invited lecture: Revisiting the *Réduction en art*: The Epistemology of the Practical Knowledge of the Venetian Arsenal
Workshop: Engineers as brokers of knowledge (Europe, 15th-18th centuries), Paris
Organizer: Liliane Hilaire-Perez
- 12/2017
Invited lecture: The Mechanics of the Heart
Workshop: The Body as Machine in Antiquity - Towards an Early History of Iatromechanics
University of Cyprus
- 10/2017
Structure and Network of Cosmological Knowledge
Workshop (co-organizer): Graphs, Networks and Digital Humanities, Bucharest
- 10/2017
Keynote: The Common Scientific Identity. Structure and Network of Cosmological Knowledge
All-Russia Science Festival, Moscow
- 07/2017
Visualization of Networks of Knowledge. The Case of the Tract *De sphaera* during the Early Modern Period
25th ICHST, Rio de Janeiro
- 06/2017
Invited lecture: Renaissance Gardening and Water Management
The History of Water Management, Lisbon (organized by Ana Rodrigues)
- 03/2017
Keynote: Praktisches Wissen und handwerkliches Können in der italienischen Renaissance: eine Entdeckungstour zu den Fundamenten der wissenschaftlichen Revolution
Istituto di Cultura Italiana, Ambasciata d'Italia, Berlin

- 02/2017 Invited lecture: Practical and Theoretical Knowledge from Medieval Forensic Anatomy to Modern Ballistics
Series: Vielfalt der Wissensformen. Humboldt Universität zu Berlin
- 01/2017 Invited lecture: The Sphere: Knowledge System Evolution and the Shared Scientific Identity in Europe
Institute of Research in the Humanities, University of Bucharest
- 01/2017 Invited lecture: The Structures of Practical Knowledge
CELFIS, University of Bucharest
- 01/2017 Netzwerktheorie und Geschichtsschreibung: Die Analyse der Kommentartradition des Sphaera von Sacrobosco (13.–17. Jh.)
Technische Universität Berlin, Forschungskolloquium
- 09/2016 Invited lecture: Medieval Cosmology and the Evolution of the Early Modern Scientific Knowledge System.
2nd International Conference on the History of Physics and Echophysics.
Poellau. Austria
- 06/2016 The Systematization of Knowledge at Pope's Will: The Medieval Liturgic Calendar Session organized by Dagmar Schäfer: Systems Thinking: Complexity and Simplification when "Making Things Work"
Annual Meeting of the Society for the History of Technology (SHOT), Singapore
- 05/2016 Invited Lecture: The Role of Cosmology from the Medieval to the Early Modern Scientific Knowledge System: Johannes de Sacrobosco's Treatise De sphaera
Conference: The Promise of the Vatican Library, University of Notre Dame, Illinois, USA
- 05/2016 Invited Lecture: Netzwerktheorie und Geschichtsschreibung: Die Analyse der Kommentartradition der *Sphaera* von Sacrobosco in der Frühneuzeit
Cologne Center for eHumanities, Cologne, Germany
- 05/2016 Invited Lecture: Das Wissenssystem begründet auf dem geozentrischen Weltbild. Seine Entwicklung vom Spätmittelalter bis zum Ende der Frühneuzeit anhand der Tradition der Traktate *De sphaera* von Joannes de Sacrobosco
Thomas-Institut der Universität zu Köln, Germany
- 04/2016 Invited Lecture: The Epistemology of Practical Knowledge
Seminar of Historical Epistemology (L. Guzzardi).
Dept. for Philosophy, Università degli Studi di Milano, Italy
- 04/2016 The Influence of Clavius's Scientific Academy on the Teaching of Mathematics in Europe
Conference: Critical Reflections on Alternative Paths to Modernity. Conference in Honor of Rivka Feldhay
Cohn Institute, Tel Aviv University, and Van Leer Institute, Jerusalem, Israel
- 04/2016 Das Netzwerk der Traktate De sphaera von Sacrobosco in der Frühen Neuzeit und das Subnetzwerk der Traktate Sphaera Ioannis de Sacrobosco von Christophorus Clavius Together with D. Wintergrün
Workshop: Wissenschaftsgeschichte und Digital Humanities in Forschung und Lehre (K. Hentschel und H. Weber). University of Göttingen, Germany

- 02/2016
Commentary as a Mean of Knowledge Production. Technology and the Mechanical Questions
Workshop: Physico-Mathematical Knowledge on the Move: From Aristotle to Seventeenth Century Jesuits
Minerva Humanities Center, Tel Aviv University, Israel
- 01/2016
Invited Lecture: The Changing Epistemic Function of Measurement in the Early Modern Period. Tartaglia's Quadrant and Galileo's Thermoscope
Egenis Seminar Series: "Measurement in Early Modern Science and Medicine."
University of Exeter, UK
- 11/2015
A Subnetwork of Treatises: The Editions of Clavius's *Sphere of Sacrobosco* in the Early Modern Network of Tracts on *The Sphere*
Together with D. Wintergrün
Workshop: Jesuit Science from a Digital Perspective. The Jesuit Science Network (V. Remmert). University of Wuppertal, Germany
- 11/2015
Translation as a Means for the Expansion of Knowledge Networks and at the Basis of Processes of Accumulation of Knowledge: The Case of the Tradition of Treatises of Sacrobosco's *De sphaera*
Conference: Narratives of Translation (S. Brentjes). Berlin
- 09/2015
Invited Lecture: Network of Knowledge and the Tradition of Sacrobosco's Tracts *de sphaera*
Institut de recherche et d'histoire des textes, Paris
- 06/2015
La 'cornetta' acustica di Galileo. Ripresa di un progetto mai terminato
Seminario di Studi su Galileo Galilei
Università degli Studi di Milano & Università degli Studi Bergamo
Gargnano, Italy
- 05/2015
Network and Identity: The Shared Scientific Knowledge of the Tracts *De sphaera Scientiae* 2015, Toronto, Canada
- 04/2015
Invited Lecture: Network of Knowledge and the Tradition of Sacrobosco's Tracts *The Sphere*
Institute colloquium at the Cohn Institute for History and Philosophy of Science and Ideas, University of Tel Aviv, Israel
- 03/2015
The Renaissance Matrix: The Roots of the Industrial Revolution in Early Modern Europe
Annual Meeting of the Renaissance Society of America, Berlin
Together with Jürgen Renn
- 03/2015
Keynote: Ballistics and Engineers in the Early Modern Period
Annual Meeting of the Deutsche Physikalische Gesellschaft, Berlin
- 02/2015
Invited lecture: Galilei der Ingenieur
Wissenschaftshistorisches Seminar
Deutsche Akademie der Naturforscher - Leopoldina. Nationale Akademie der Wissenschaften

- 11/2014 Liberty of action and imitation: how to achieve a result by any means.
Workshop: Technologies of Spectacles - Knowledge Transfer in Early Modern Theater Cultures. University of Amsterdam, Amsterdam.
- 11/2014 Invited lecture: Network of Knowledge and the Tradition of Sacrobosco's Tracts "The Sphere"
University of Oklahoma Libraries, University of Oklahoma, Norman (USA)
- 09/2014 The Spread of Greek Mechanics and Roman Culture
Conference: 6th International Conference of European Society for the History of Science, Lisbon
- 05/2014 Invited lecture: Network of Knowledge and the Tradition of Sacrobosco's Tracts "The Sphere"
Project: Migration of Knowledge, Minerva Center, University of Tel Aviv
- 05/2014 Keynote: Galileo nel telescopio
Celebrazioni galileiane presso Università degli Studi di Pavia
- 04/2014 Invited lecture: The Future of Academic Publishing
Max Planck Institute for the History of Science, Berlin
Organized by Lorraine Daston
- 11/2013 Pneumatik: Luft und Abbildungen
Conference: Annual Meeting of the Excellence Cluster TOPOI, Berlin
- 09/2013 Invited lecture: Metallurgy, Ballistics and Epistemic Instruments. The "Nova scientia" of Nicolò Tartaglia
Dept. of History of Science, University of Oklahoma
- 09/2013 Keynote: L'idrostatica di Archimede nel suo contest tecnologico
Conference: XXXII Convegno Nazionale della Società Italiana degli Storici della Fisica e dell'Astronomia, Siracusa, Italy
- 01/2013 16th-Century Professionals and Natural Philosophers: A Debate about Nature
Conference: 3rd International Conference of the European Society for Early Modern Philosophy, Grenoble, France
- 11/2012 Organizer of Session: Experience as a Mechanism of Appropriation and Transformation of Ancient Science
Speakers: Joyce van Leeuwen (University of Pittsburgh), Courtney Roby (Cornell University), Harald Siebert (Université de Versailles), and Matteo Valleriani (MPIWG)
Conference: Annual Meeting of the American History of Science Society, San Diego
- 12/2012 Keynote: The Renaissance Engineer's Nature
Thomas Harriot Seminar, Durham (UK)
- 04/2013 Institute's Colloquium, Max Planck Institute for the History of Science, Berlin
- 10/2012 The Spread of Greek Mechanics in Hellenistic and Roman Culture
Conference: Globalization of Knowledge in the Mediterranean World of Post-Antiquity. Mechanisms of Transfer and Transformation
Max Planck Institute for the History of Science, Berlin
- 09/2012 The Organ of the Garden of Tivoli
Conference: Gardening and Knowledge. Landscape Design and the Sciences in the Early Modern Period, University of Hannover

- 09/2012 Galileo's Trattato della Sfera in the Context of the Tradition of Practical Astronomy
Conference: Tintenfass und Teleskop, Villa Vigoni, Italy
- 06/2012 Keynote Lecture: Mechanics and the Resistance of Materials
Conference: Matters of Weight, Kunsthistorisches Institut, Florence
- 05/2012 Title: Implementation of Water in Antiquity from the Near East to the Borders of the Roman Empire
Conference: My Anthropocene, Haus der Kulturen der Welt, Berlin
- 01/2011 Die Struktur des Praktischen Wissens. Italien. Ende des 16. Jahrhunderts / The Structure of Practical Knowledge
11/2011 Technische Universität Berlin, Research Colloquium (Prof. Friedrich Steinle) and Hungarian Academy of Science, Budapest
- 12/2010 Keynote: Practical and Theoretical Knowledge in Early Modern Italy
Workshop: Mathematical Life in the Dutch Republic, Lorentz Center, Leiden, The Netherlands
- 06/2010 The Garden of Pratolino: Ancient Science on the Workbench of the Renaissance Engineer
Conference: Fabrique et usages du jardin du XIVE au XVIIe siècle, Centre d'Études Supérieures de la Renaissance, Tours, France
- Title: Galileo Engineer
Places:
- Invited lecture: Dept. of History of Science, Harvard University (organized by Mario Biagioli)
- Invited lecture: Dept. of History of Science at the Georgia Institute of Technology (organized by Prof. Kristie Macrakis)
- Annual Meeting of the German History of Science Society, Hannover (Panel organized by Ursula Klein)
- HSS Phoenix, Arizona, USA
- Invited lecture: Technische Universität, Dept. of History and Philosophy of Science, Berlin (Research Colloquium organized by Friedrich Steinle)
- Invited lecture: Universität Stuttgart, Dept. for History of Science and Technology (Research Colloquium organized by Klaus Hentschel)
- 04/2009 Invited lecture: Hero's Pneumatics: An Ancient Framework Tested and Approved at the Garden of Pratolino for the Development of Modern Science
Panel organized by K. Park at the Dept. of History of Science of Harvard University
- 11/2008 Invited lecture: Galileo's Cancelled Project on Acoustic Instruments at the Medici Court
Colloquium of Dept. II organized by Lorraine Daston, MPIWG, Berlin
- 10/2008 The Garden of Pratolino: Material Translation and Transformation of Hero's Pneumatics
Conference: SHOT, Lisboa
- 09/2008 Erone rinascimentale: le macchine pneumatiche di Pratolino
Conference: La cultura delle acque dal Medioevo al Rinascimento
Centro Leon Battista Alberti, Mantova, Italy
- 07/2008 Galileo Engineer: Exploring Galileo's Practical Knowledge
Conference: Three Societies Meeting, Oxford, UK

- 04/2008 The War in Ariosto's *Orlando Furioso*: Snap-Shot of the Passage From Medieval to Early Modern Technology
Conference: War in Words, Humboldt University of Berlin, Berlin (Germany)
- 11/2007 Invited lecture: Galileo in the Role of Caster's Assistant: The Bell of the Torre del Mangia in Siena
Conference: Galilean Lectures. Berlin Edition 2007, Berlin
- 11/2007 The Transformation of Aristotle's *Mechanical Questions* by the Renaissance Italian Engineers: The Case of Question XVI
Conference: HSS Annual Meeting, Arlington
- 04/2007 Invited lecture: Galileo, the Thermoscope and his Atomistic Conception of Heat
Institute for History and Foundations of Science, Utrecht University
- 12/2006 Invited lecture: Galileo e l'Arsenale di Venezia
Place: Dept. for Epistemology. University of Milan, Italy
- 12/2005 From Condensation to Compression: How Renaissance Italian Engineers Approached Hero's Pneumatics
Conference: Übersetzung und Transformation, Humboldt-Universität, Berlin
- 09/2005 Einstein Ingegnere dell'Universo, una mostra a Berlino per celebrare l'Annus Mirabilis
Conference: Annual Meeting of the Società Italiana di Fisica, Catania, Italy
- 06/2005 Ship as Machine. The Change of the Building Process into the Venetian Arsenal between the XVI and the XVII Centuries
Conference: Les Machines à la Renaissance, Centre d'Études Supérieures de la Renaissance, Tours, France
- 02/2001 A View on Galileo's *Ricordi Autografi*. Galileo Practitioner in Padua
Conference: Largo Campo di Filosofare, Orotawa, Tenerife
- 10/1999 Some Episodes of the Hidden History of a non-Traditional Interpretation of the Theory of General Relativity
Conference: XVIII Congresso di Storia della Fisica e della Astronomia, Como, Italy