

## KAROLIINA PULKKINEN

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ORCID [0000-0003-4976-8216](https://orcid.org/0000-0003-4976-8216) Aleksanteri Institute, University of Helsinki.

## Academic positions

2021–2026 Postdoctoral researcher (PI), Aleksanteri Institute, University of Helsinki.  
(On parental leave 1.3.2023-1.11.2023, which extends the project)

2019–2021 Postdoctoral researcher, Department of Philosophy, KTH Royal Institute of Technology, Stockholm.

## Education

2015–2019 Ph.D, History and Philosophy of Science, University of Cambridge.

2014–2015 M.Phil, History and Philosophy of Science, University of Cambridge.

2010–2014 BA, Philosophy, University of Glasgow.

## Research funding and awards

2023 Beyond democratic legitimacy of value-judgments in science: a closer look at science in the early Soviet Union. Runner-up for IUHPST Essay Prize in History and Philosophy of Science.

2021-2026 PI, *Tracking the role of values in Soviet science*, Project grant: Kone foundation (€159 500), grant no. 202013505.

2015-2019 Oskar Huttunen Foundation scholarship for Ph.D. Research (€97 200).

## Peer-reviewed publications

Forthcoming Pulkkinen, K. “Kemian filosofia.” *Ensyklopedia Logos*.

2024 Pulkkinen, K. [“Bonifatii Kedrov’s methodological essays: Marxist histories of chemistry, science, and technology.”](#) *Kagakushi*.

2023 Pulkkinen, K. [“On Compatibility between Presentism and Anti-Presentism in History of Science.”](#) *Journal of the Philosophy of History*.

2022 Pulkkinen, K., Undorf, S., Bender, F. A-M. [“Values in climate modelling: testing the practical applicability of the Moral Imagination ideal.”](#) *European Journal for Philosophy of Science*.

2022 Undorf, S., Pulkkinen, K., Wikman-Svahn, P., Bender, F. A-M. “[How do value-judgements enter model-based assessments of climate sensitivity?](#)” *Climatic Change*.

2020 Pulkkinen, K. “[Values in the Development of Early Periodic Tables](#).” *Ambix*.

2020 Campbell, C., & Pulkkinen, K. “[How Mendeleev issued his predictions: comment on Andrea Woody](#).” *Foundations of Chemistry*.

2020 Pulkkinen, K. “[Values and periodicity: Mendeleev's reception of the equations of Mills, Chicherin, and Vincent](#).” *Centaurus*.

2019 Pulkkinen, K. “[The Value of Completeness: How Mendeleev Used His Periodic System to Make Predictions](#).” *Philosophy of Science*.

### Book chapters

Forthcoming Pulkkinen, K. “Values in Science in Nondemocratic Contexts” in Elliott, K., & Richards, T. *The Routledge Handbook of Values and Science*.

2025 Walsh, K., and Pulkkinen, K. “Philosophy of Science in the Archive.” In Currie, A., & Veigl, S. (eds). *Philosophy of Science: A User's Guide*. MIT Press.

### Commentaries and editorials

2024 Gani, S., Arnal, L., Beattie, L., Hillier, J., Illingworth, S., Lanza, T., Mohadjer, S., Pulkkinen, K., Roop, H., Stewart, I., von Elverfeldt, K., & Zihms, S. (2024). “[Editorial: The shadowlands of \(geo\)science communication in academia – definitions, problems, and possible solutions](#).” *Geoscience Communication*.

2022 Pulkkinen, K., Undorf S., Bender F., Wikman-Svahn P., Doblas Reyes F., Flynn C., Hegerl G.C., Jönsson A., Leung, G., Roussos, J., Shepherd, T.G., and Thompson, E., “[The Value of Values in Climate Science](#).” *Nature Climate Change*.

### Book reviews

2024 “[A hundred and fifty years of periodicity](#).” Essay review, *Ambix*.

2022 Philip Ball. “The Elements: A Visual History of Their Discovery.” *Isis*.

2021 “[Timing discoveries, timing updated editions](#).” *Metascience*.

2019 “Mendeleev to Oganesson: A Multidisciplinary Perspective on the Periodic Table.” *Ambix*.

## Teaching

### Lecturer

2024 Principal Instructor, History of Science and Technology in the Soviet Union, University of Helsinki.

2023 Principal Instructor (together with Dr. Dmitry Arzyutov), History and Philosophy of the Soviet Sciences, University of Oulu.

2020-25 Visiting lecturer, Research Ethics for Doctoral Supervision, KTH Stockholm.

2022 Lecturer at Summer School “Science and Values: Historical and Philosophical Perspectives,” Utrecht University.

2020-21 Principal Instructor, Ethics of Medical Technology, KTH Stockholm.

### Supervision and seminar teaching

2019-20 Seminar teacher, Theory and Methodology of Science, KTH Stockholm.

2019 Seminar teacher, Philosophy of Risk, KTH Stockholm.

2017-18 Supervisor, Philosophy of Science, University of Cambridge.

2015-18 Supervisor, Politics and Ethics of Medicine, University of Cambridge.

2015-16 Supervisor, Bioethics, University of Cambridge.

### Pedagogic training

2025 YP2.1 Constructive alignment in course design (5 credits) at University of Helsinki.

2024 YP1. Teaching and learning in Higher Education (5 credits) at University of Helsinki.

## Presentations

### Invited

2025 “Science, technology and values? Perspectives from the history of Soviet science and Technology” (“Tiede, teknologia ja arvot? Perspektiivejä Neuvostoliiton tieteen- ja teknologian historiasta), Finnish Philosophical Society (SFY), March 2025.

2023 “Values in science,” Higher Seminar, Department for Learning in Engineering Sciences, KTH Royal Institute of Technology, Stockholm, November 2023.

2023 “Integrating history and philosophy of chemistry: the case of Bonifatii Kedrov,” 50<sup>th</sup> anniversary meeting of the Japanese Society for the History of Chemistry, Tokyo, July 2023.

2022 “Science and values under authoritarianism: a closer look at science in the Soviet Union” at Democracy and Values in Science Workshop, Institute for Futures Studies, Stockholm, October 2022.

2022 “Interpreting the Past for a Purpose”, Workshop on the Future of Philosophy of History, University of Oulu, June 2022.

2022 “Values in climate modelling: testing the practical applicability of the Moral Imagination ideal,” Expert Workshop on Values and Deliberation in Climate Economics, Mercator Research Institute on Global Commons and Climate Change (MCC), Berlin/online, March 2022.

2022 “Values in model-based assessments of climate sensitivity,” Department of Meteorology, Stockholm University, January 2022.

2021 “Role of Values in Climate Modelling,” Institute for Atmospheric and Earth System Research, University of Helsinki.

2021 “Making Scientific Progress More Progressive,” Values in Science workshop, Institute of Futures Studies, Stockholm, May 2021.

2020 “Introduction to Values in Science,” presentation for Chemical Meteorology Group at Department of Meteorology, Stockholm University.

2019 “Values and the Periodic Table,” Philosophy Division at KTH Royal Institute of Technology, Stockholm, September 2019.

2019 “Some Sixty or More Primordial Matters: Chemical Ontology and the Periodicity of Chemical Elements,” History and Ontology of Chemistry: Symposium of the Joint Commission of the IUHPST 4, CLMPST, Prague, August 2019.

2019 “Values and the Periodic Table,” International Year of the Periodic Table session, CLMPST, Prague, August 2019.

2019 “Science and Values: an IHPS perspective,” co-panelist with Sabina Leonelli, Hasok Chang, John Dupré and Greg Radick at Integrated History and Philosophy of Science Workshop, Exeter, June 2019.

2019 “Carefulness and the chemical elements: the periodic systems of Julius Lothar Meyer,” PHASE-Chimie, Université Paris Diderot, Paris, June 2019.

2018 “Values and uses: how Mendeleev’s valuing of completeness supported making predictions,” Oxford Seminar in the History of Alchemy and Chemistry, Oxford, January 2018.

2018 Commentator to Quill Kukla’s talk “The Epistemology of Maps” at Values in Science: New Perspectives and Directions workshop, University of Cambridge.

2016 “Classifications of the chemical elements and epistemic values,” PhD Seminar, Centre for History of Science, Technology and Medicine (CHSTM), Manchester.

### **Conference, workshop and seminar presentations (peer-reviewed in bold)**

2025 “Science, technology, and legitimization: towards a broader understanding of nondemocratic political legitimacy” **History of Science Society**, New Orleans, November 2025.

2025 “Science, technology, and legitimization: towards a broader understanding of nondemocratic political legitimacy” **Philosophy of Science Association Around the World**, November 2025 (online).

2025 “From a ‘maid’ to a ‘mother’: finding a foothold for fundamental chemistry in the Soviet Union. Symposium on “Classifying Knowledge and Labor in the Modern Physical Sciences”, **International Congress of History of Science and Technology (ICHST)**, Dunedin, July 2025.

2025 “Marxist Integrations of History and Philosophy of Science: the case of Bonifatii Kedrov” **&HPS10**, CalTech, Los Angeles, March 2025.

2024 “Bonifatii Kedrov’s methodological essays on Marxist histories of chemistry, science, and technology,” **Aleksanteri conference: Resisting Authoritarianism in Eurasia**, Helsinki, October 2024.

2024 “Values in Science in Nondemocratic Contexts,” Work in Progress seminar, Michigan State University, September 2024.

2024 “On The Role of Values in Science in Nondemocratic Contexts,” **British Society for the Philosophy of Science**, York, July 2024.

2024 “Legitimacy of values in research – a closer look at authoritarian contexts” *Perspectives on Philosophy of Science*, University of Helsinki, May 2024.

2022 “Philosophy and History of Science in the Soviet Union: the case of Bonifatii Mikhailovich Kedrov,” **Society for Philosophy of Science in Practice**, Ghent, July 2022.

2021 “Two Challenges to the Democratic Aims Approach” **Philosophy of Science Association**, Baltimore, online, November 2021.

2021 “Could Scientific representations help to cultivate epistemic humility?” **British Society for the Philosophy of Science**, online.

2021 “Values in (climate) science: What model-based assessments of climate sensitivity teach us about value-judgments and demands on norms thereon” Undorf, S., Pulkkinen, K., Bender, F., and Wikman Svahn P. **EGU General Assembly**, online.

2020 “How bright is too bright? Identifying the role of values in climate modelling in a collaborative project between philosophers and climate scientists using Brown’s idea of “contingencies”” **Consortium for Socially Relevant Philosophy of/in Science and Engineering**. (Accepted for the conference, but talk cancelled due to covid-19).

2020 “Ibsen Predicaments and the Aims Approach,” **Values in Medicine, Science, and Technology**, Dallas. (Accepted for the conference, but talk cancelled due to covid-19).

2019 “Values and the Periodic System,” **European Philosophy of Science Association**, Geneva, September 2019.

2019 “Some Sixty or More Primordial Matters: Chemical Ontology and the Periodicity of Chemical Elements,” **History and Ontology of Chemistry: Symposium of the Joint Commission of the IUHPST 4, CLMPST**, Prague, August 2019.

2019 “Values and the Periodic Table,” **International Year of the Periodic Table session, CLMPST**, Prague, August 2019.

2019 “Values and the Periodic System,” Integrated History and Philosophy of Science Workshop, Exeter, June 2019.

2019 “Carefulness and the chemical elements: the periodic systems of Julius Lothar Meyer,” Symposium presentation for Structure and Composition in Chemistry, **British Society for the Philosophy of Science**, Durham, July 2019.

2018 “How Mendeleev’s valuing of completeness supported making predictions,” **Philosophy of Science Association**, Seattle, November 2018.

2018 “How Mendeleev’s valuing of completeness supported making predictions,” **International Society of Philosophy of Chemistry (ISPC)**, Bristol, July 2018.

2018 “Contextualizing values with the help of the hermeneutic approach to iHPS,” **&HPS7**, Hannover, July 2018.

2018 “Contextualizing values with the help of the hermeneutic approach to iHPS,” **Society for Philosophy of Science in Practice**, Ghent, June-July 2018.

2018 “How Mendeleev’s valuing of completeness supported making predictions,” Association for the Discussion of History of Chemistry, University of Cambridge, Cambridge.

2018 “Language Games in the Periphery of European Chemistry,” **BSHS Postgraduate conference**, Manchester, April 2018.

2016 “Classifications of the chemical elements and epistemic values,” the British Society for the History of Science Postgraduate conference, Cambridge, January 2016.

2016 “Classifications of the chemical elements and epistemic values,” at UCL Philosophy of Science postgraduate conference, London.

2016 “Classifications of the chemical elements and epistemic values,” **Descartes Lectures**, Tilburg, September 2016.

## Professional service

### Events organised

2025 “Classifying Knowledge and Labor in the Modern Physical Sciences,” a symposium co-organised with Dr Joseph Martin, International Congress of History of Science and Technology, Dunedin, New Zealand, 29-5 July 2025.

2024 “History of Chemistry and Area Studies” roundtable, a session in the Conversations on History of Chemistry series run by Dr Sarah Hijmans for International Union of History and Philosophy of Science and Technology, 31 October 2024.

2024 Co-organiser of “Identifying value-judgment in climate impact science,” workshop at Potsdam Institute of Climate Impact Research (PIK), 20-21 June 2024.

2021 Co-organiser of “Values, Choices, and Uncertainties in Climate Modelling” workshop at KTH Royal Institute of Technology and University of Stockholm, 22-23 February 2021.

2021 Co-organiser of the Diversity Reading List Update-a-thon for the Women’s Caucus of European Society of Philosophy of Science.

2020 Co-organised the Chemistry Week, August 2020 and weekly check-ins for Virtual History of Science, Technology and Medicine Virtual Community founded by Dr Sarah Qidwai.

2017-19 Organiser of “Association for Discussion of History of Chemistry” (AdHoc) at HPS, University of Cambridge.

2017-18 Co-organiser for “Power of Vision: The Camera as a Political Technology” at Centre for Research in the Arts, Social Sciences and Humanities (CRASSH).

### Editorial and committee work

2025 Co-organiser for the Joint Commission of IUHPST online workshop series.

2025- Associate editor for *Foundations of Chemistry*

2025- Member of the DHST/DLMPST Commission on the History of Chemistry and Molecular sciences

2024-26 Member of DHST/DLMPST Joint Commission

2020- Co-founder of *Jargonium*, a blog on history and philosophy of chemistry.

2019- Editorial board member for *Foundations of Chemistry*.

2019- Editor of *Chemical Intelligence*, newsletter for Society for the History of Alchemy and Chemistry.

## Refereeing

Journals *Synthese, The British Journal for the Philosophy of Science, Philosophy of Science, European Journal for Philosophy of Science, Frontiers in Climate, Bulletin of the American Meteorological Society, Journal for General Philosophy of Science, Studies in History and Philosophy of Science, Historical Studies in the Natural Sciences.*

Conferences Philosophy of Science Association poster evaluation committee (2024), the British Society for the Philosophy of Science (2025; 2022).

## Talks, film screenings and exhibitions for general audiences

2019 Curator of [“Curating the Chemical Elements: Julius Lothar Meyer’s Periodic Systems.”](#)  
Whipple Library, Cambridge, November 2018-May 2019.

2018 Co-curator of [“Take Me There”](#) pop-up exhibition for Power and Vision seminar series, Heong Gallery, Downing College, Cambridge, May 2018.

2018 “Mendeleev’s predictions,” Darwin College Lunchtime Lectures, Cambridge.

2018 “Language Games in the Periphery of European Chemistry,” Darwin College Lunchtime Lectures, Cambridge.

2017 “Introduction to philosophy,” Jack Hunt School, Peterborough.

2016-17 Two screenings of my short documentary [‘Social Science ‘\(2015\)](#) at “Coffee with Scientists” -session at HPS Cambridge and at Darwin College, Cambridge.

2016 “Periodic systems and values,” Darwin College Lunchtime Lectures, Cambridge.

## Languages

Native: Finnish, Russian

Fluent: English

Working proficiency: French, Swedish

Currently in the process of learning: German, Japanese.