



CIPSH Chair DMRCP
Diversity of Mathematical Research Cultures and Practices
 Chair holder. Prof. Dr. Benedikt Löwe

DMRCP Senior Fellows. C. Antos-Kuby (Konstanz), H. De Cruz (St Louis MO), K. François (Brussels), C. Greiffenhagen (Hong Kong), G. Heinzmann (Nancy), M. Inglis (Loughborough), C. Jami (Paris), B. Larvor (Hatfield), U. Martin (Edinburgh & Oxford), H. Mihaljević (Berlin), E. Müller-Hill (Rostock), R. Ramanujam (Chennai), D. Schlimm (Montréal QC), H. K. Sørensen (Copenhagen), B. Van Kerkhove (Brussels).

DMRCP Newsletter # 3

15 August 2023

Second DMRCP Seminar Meeting.

On 10 July 2023, we had our second DMRCP Seminar with twelve online participants. We had two presentations: Carolin Antos SF explained her *Forcing Project* that is almost finished, the corresponding planned monograph on conceptual change in mathematics, and a new project on the role of examples in mathematical reasoning. Helena Mihaljević SF presented her past and future research on the gender publication gap in mathematics; in particular, she discussed how data science methods can be used to study such phenomena. More detailed minutes of the seminar will be available to DMRCP members.

News from the DMRCP Fellowship.

Unfortunately, due to conflicting commitments, Hanne Andersen had to resign from her Senior Fellowship and the DMRCP Council. Council elected Henrik Kragh Sørensen to become a DMRCP Senior Fellow representing our partner *Københavns Universitet* for the period from 1 July 2023 to 30 June 2026 and Hanne Andersen to regular DMRCP Fellowship for the period from 1 July 2023 to 30 June 2025.

Helena Mihaljević SF was interviewed for a podcast with the channel *Purple Code* covering feminist perspectives on digital societies at the Weizenbaum Institute for the Networked Society: <https://purplecode.org/?podcast=with-helena-mihaljevic>.

Deniz Sarikaya F is currently editing a *Collection* in the journal *Global Philosophy* on the topic of “Mathematical neutrality in science, technology and society” (jointly with José Antonio Pérez-Escobar). The first two papers in the collection have appeared: *Neutrality, Ecofeminist Theory, and the Mathematical Analysis of Partisan Gerrymandering* by B. Braun and *The Ethical Charge of Articulating Mathematics* by R. Wagner. Submissions are still accepted until 15 December 2023.

European Commission funding application.

DMRCP has decided to apply for European Commission funding in the form of an *Marie Skłodowska-Curie Doctoral Network* under the working title of **DMRCP Network on Publication Processes in Mathematics** (DMRCP-PPriMe). The network will have four nodes (Brussels, Copenhagen, Hamburg, and Loughborough) and a number of *associated partners*.

The aim of the doctoral network DMRCP-PPriMe is to study the mathematical publication process in detail using empirical methods bringing together mathematics, philosophy, sociology, and education. We aim to have a very broad and holistic view of the publication process that starts with the impact of publication plans on research planning, continues with framing the publication, typing it, the submission and peer review process, the editorial and production process, as well as the reception of the publication in the disciplinary community. We include all forms of mathematical publication in our projects, including journal papers, preprints, textbooks, and research monographs. More practice-related topics such as a community-wide change to different publication models or including automated proof-checking software into the publication process are of particular interest; for this purpose, we aim to have some of the major mathematics publishers and publishing software providers as associated partners.

The coordinators of the four nodes are currently in the process of drafting a first version of the application text that will be shared with the DMRCP members in mid September 2023. We also plan to organise our fourth DMRCP Seminar on the topic of this application (in October 2023, see below).

Activities.

Next DMRCP Seminars. We plan to have our next two DMRCP Seminars in early September and early October, respectively. Our third seminar in early September will be another *get to know each other seminar* where Fellows and Senior Fellows describe their interests and highlight possibilities of research interaction (Dirk Schlimm SF has already agreed to be one of the speakers). The fourth seminar will be focusing on our planned application for the *Marie Skłodowska-Curie Doctoral Network DMRCP-PPriMe* (see above).

Mathematical participant's pool for empirical studies. For empirical studies involving research mathematicians, it is often difficult to find contacts willing to participate. It was proposed that DMRCP should explore the idea of creating a mailing list of research mathematicians who are interested in participating in empirical studies of this kind. A research project that is in need of contacts could then ask for support via this list. DMRCP now created a mailing list called **dmrcp-studies**: the overall coordinator is Matthew Inglis SF; the list is technically maintained by the DMRCP Scientific Coordinator. So far, the list is still empty: if you know of any research mathematicians who would be willing to be added to the list, please let us know.

Presentation of new Fellows.

Yacin Hamami is a MSCA postdoctoral fellow at the *Department of Humanities, Social and Political Sciences* of the ETH Zürich. His areas of research are the philosophy of mathematics, the philosophy of logic, and geometric cognition. Most of his work revolves around the nature of justification, representation, and agency in mathematics. He is approaching these questions in connection with related issues in epistemology, the philosophy of mind, and the philosophy of action. The overarching theme of his research is the nature of inference and proof in mathematical practice. Lately, he has been interested in the potential bridges between philosophy of mathematical practice and mathematics education research.

Mikkel Tvorup Moseholm has a masters degree in philosophy from the University of Copenhagen and is currently studying mathematics there as well. His main interests are philosophy of mathematical practice, logic, computer science and philosophy of science in general. He is a member of the *digital humanities for philosophy of mathematical practice group (DH4PMP)* hosted by Henrik Kragh Sørensen SF and Mikkel Willum Johansen F and has been working on projects about disagreements in mathematics and methodology in philosophy of mathematical practice.



David Waszek is a post-doctoral researcher at the École Normale Supérieure, Paris, in the *Institut des Textes et Manuscrits Modernes (ITEM)*. He is interested in the way mathematics is *expressed* and *written down*, including the notations and diagrams that are used, the definitions that are chosen, and the way texts are structured. He explores this topic both *philosophically*, trying to better understand how choices of language impact mathematical practice, and *historically*, focusing on the various *values* that drive such choices. As examples of recent work, on the philosophical side he has explored the idea that differences between representations could be approached based on a computing analogy, as computational differences. On the historical side he has worked on notational choices by and around Leibniz in the late seventeenth-century; on notations in the nineteenth-century algebra of logic, in joint work with Dirk Schlimm SF; and among other projects, he is currently working with Nicolas Michel on notations in nineteenth-century enumerative geometry.



As in our first newsletter, we mark the Fellows and Senior Fellows of DMRCP with the post-nominal letters ‘F’ and ‘SF’, respectively.

If you have any information to be included in the next newsletter, please e-mail Deborah Kant at dmrpc.scientificcoordinator@cipsh.international.