

## **PhD Position in the History of Philosophy of Science and Mathematics (3 years, fully funded, 75% equivalent to 30 hours/week), University of Vienna**

The Department of Philosophy at the University of Vienna is inviting applications for the position of a PhD candidate (fully funded, 75%, equivalent to 30 hours/week; 3 years) within the project “*The Formal Turn – The Emergence of Formalism in Twentieth-Century Thought*”. This is a five-year Consolidator Grant project (2022-2027) funded by the European Research Council and led by Georg Schiemer, Professor at the Department of Philosophy.

### Project Description:

The philosophy of science and logic underwent a wide-ranging *formal turn* in the first half of the twentieth century. This shift is characterized by a new emphasis on formal methods and the adoption of a general formalist viewpoint towards the disciplines in question. Roughly put, formalism presented a novel methodological and epistemological stance: it is characterized by the use of non-representational forms of reasoning as well as the focus on the purely structural features of a field of inquiry, studied in abstraction from its traditional subject matter and from considerations about meaning or interpretation. As such, the position was often linked to a new understanding of the nature of scientific objectivity and rigor. Moreover, formalist positions not only dominated research at the time, but also led to fundamentally revised conceptions of logic, mathematics, and the philosophy of the exact sciences, determining the shape of these disciplines today.

The project will give an interdisciplinary and comparative study of early contributions to formalism in twentieth-century thought. This general objective will be addressed in terms of three interrelated subprojects. The first subproject is historical in character and aims at a historical reconstruction of the emergence of formalist thinking in nineteenth-century mathematics and neo-Kantian philosophy of science. On the mathematical side, the project will retrace several methodological developments in geometry, symbolic algebra, and number theory in the nineteenth century that contributed to a formalist conception of these fields. Regarding its philosophical roots, the focus will be on contributions to a formalist notion of scientific objectivity in the work of the Marburg school of neo-Kantianism (Hermann Cohen, Ernst Cassirer, Paul Natorp). The second subproject will give a comparative study of the formal turn in logic and the philosophy of logical empiricism between 1920 and 1940. This includes research on the foundations of mathematics and the formality of logic by members of the Göttingen school (David Hilbert, Paul Bernays, Gerhard Gentzen) as well as central contributions to a scientific formalism in logical empiricism (Rudolf Carnap, Moritz Schlick). The third subproject will analyze the philosophical implications of the formal turn for the subsequent shaping of these fields. The emergence of formalist thinking was closely related to the development of new theories of semantics in logic and philosophy. The aim will therefore be to connect the early contributions to formalism with contemporary debates on the philosophy of model theory and inferentialism as well as with the logical study of scientific theories.

### Job Description:

The PhD candidate will conduct research on the history of philosophy of science and mathematics in neo-Kantianism and/or Logical Empiricism, as related to subprojects (2) (“*Neo-Kantian epistemology and formal objectivity*”) and (3) (“*Scientific formalism in Logical Empiricism*”) of the ERC project. Potential research areas include (but are *not* limited to):

- ) Historical research on neo-Kantian philosophy of science (with a focus on work by members of the Marburg school)
- ) Contributions to the philosophy of logic and mathematics in the Marburg school and in the Vienna Circle (Ernst Cassirer, Paul Natorp, Rudolf Carnap, Hans Hahn, Karl Menger, etc.)
- ) Early contributions to the “logic of science” and logical theory reconstruction.
- ) neo-Kantian influences on logical empiricism (in particular in the work of Rudolf Carnap and Moritz Schlick)

The PhD candidate will carry out research in one of these fields (or a related field) with the aim of completing a doctoral thesis under the supervision of Prof. Georg Schiemer.

The candidate is expected to present the results of her/his research at workshops and international conferences. She/he is also expected to assist in the organization of local workshops and/or conferences related to the ERC project.

The position comes without teaching obligations. No German language competency is required.

Extent of Employment: 30 hours/week.

Job grading in accordance with collective bargaining agreement: §48 VwGr. B1 “Grundstufe” (praedoc):

<https://personalwesen.univie.ac.at/en/jobs-recruiting/job-center/salary-scheme/>

The pay grade will depend on previous work experience of the applicant.

#### Requirements:

The successful candidate will have a Master’s degree in philosophy.

If the applicant does not yet have a Master’s degree at the time of the application, she/he can submit a letter by the university confirming that the MA thesis has been submitted.

The successful candidate for the position will have demonstrable competence in one of the research areas outlined in the job description.

#### Application:

Applications must include a CV, copies of degree certificates, a description of planned research (1000 words), as well as a writing sample. Applications should be sent as a single PDF file (max. 4 MB) by email to: [florian.kolowrat@univie.ac.at](mailto:florian.kolowrat@univie.ac.at)

The deadline for the application is January 31, 2023. The starting date for the position is March 1, 2023 (a later starting date is possible in exceptional cases).

For further questions, please contact Georg Schiemer ([georg.schiemer@univie.ac.at](mailto:georg.schiemer@univie.ac.at)) or visit the project website: <https://formalism.phl.univie.ac.at>

The University pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity (<http://diversity.univie.ac.at/>). The University lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.