

Phenomenological Approaches to Physics — Historical and Philosophical Perspectives

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Scientific Organizers: Philipp Berghofer and Harald A. Wiltsche

Web: www.phenphysics.weebly.com

Much ink has been spilled over the interrelations between philosophy and physics in the late 19th and early 20th century as well as over the emergence of philosophy of science as an autonomous philosophical sub-discipline. Although our understanding of these issues is certainly more nuanced today than it was only a couple of years ago, more work needs to be done in order to arrive at an adequate picture of the intricate relations between philosophy and physics and of how philosophical reflections on the physical sciences evolved during the last century. The aim of this conference is to address one of the remaining blind spots, namely the role of phenomenology in the development of 20th century physics and for the philosophical interpretation of physics.

The conference will be organized around three topical areas:

1. The first concerns the direct impact phenomenology might have had on the development of 20th century physics. For instance, a handful of recent studies have pointed to the phenomenological background of mathematicians and physicists such as Hermann Weyl or Fritz London. The conference is interested in papers that expand on these studies or go beyond them by adding to the list of physicists with phenomenological leanings.
2. The second topical area concerns the influence of phenomenology on different attempts to understand the physical sciences from a philosophical point of view. On the one hand, we are interested in papers that focus on phenomenological influences on “standard” philosophy of science in the Anglo-American tradition. On the other hand, we welcome contributions focussing on the phenomenological impact on other traditions such as the French tradition of philosophy and history of science (Bachelard, Canguilhem, Cavailles, Koyré, Foucault etc.).
3. The third topical area concerns genuinely phenomenological contributions to contemporary philosophy of physics. Is the framework of phenomenology adequate to make sense of modern physics? Are there specific aspects of the research practice in modern physics that could be better understood through phenomenological analyses? What ramifications does a phenomenological approach have for long-standing debates about, for instance, realism and anti-realism, the ontological status of models or the interpretation of space-time? Finally, what can phenomenology tell us about the limits of physics or the project of mathematically describing nature in general? How to estimate the relationship between nature and mathematics?

Confirmed Keynote Speakers:

Michel Bitbol (Archives Husserl, École Normale Supérieure)

Steven French (University of Leeds)

Hans-Jörg Rheinberger (Max Planck Institute for the History of Science)

Thomas Ryckman (Stanford University)

Submissions should not exceed 500 words, must be in English (conference language), and should be prepared for blind review. Submissions and general inquiries should be sent to phenphysics@gmail.com. Selected papers will be part of a proposal sent to major philosophical presses. Philosophers who are members of traditionally underrepresented groups are especially encouraged to apply and to self-identify in their emails.

The submission deadline is January 15, 2018.

The conference is supported by the Department for Philosophy (Section Phenomenology) (<https://philosophie-gewi.uni-graz.at/en/researching/phenomenology/>) and by the Center for the History of Science at the University of Graz (<http://wissenschafts-geschichte.uni-graz.at/>).