POZNAŃ STUDIES

IN THE PHILOSOPHY OF THE SCIENCES AND THE HUMANITIES

Call for papers

Metaphysics in Contemporary Physics

Edited by

Tomasz Bigaj and Christian Wüthrich

Very recently, and after a long hiatus, the metaphysics of physics has enjoyed a remarkable renaissance, with both philosophers and physicists addressing explicitly metaphysical questions that arise in the context of physics and the interpretation of its theories. As theoretical physics has achieved dramatic progress, pushing back the boundaries of our knowledge and forcing us to rethink our most fundamental concepts describing physical reality, questions about the impact of this rapid development on traditionally conceived metaphysical investigations become urgent. Does it make metaphysics irrelevant, or does it call for an altogether new metaphysics? On the other hand, physics has encountered more than a few roadblocks in its fundamental endeavours, e.g. in attempts to bring gravity into the fold of the standard model. Could reconceiving the metaphysical foundations of fundamental physical theories possibly lead to a breakthrough, as some have suggested?

The aim of this volume is to bring together papers that address various aspects of the mutual interrelations between contemporary research in theoretical physics and the conceptual work done in analytic metaphysics. The suggested topics for the contributions to the volume include, but are most definitely not limited to, the following questions:

- Are fundamental objects postulated by our physical theories (elementary particles, fields, spacetime points, etc.) individuals with intrinsic properties and well-defined identities, or perhaps relational structures with no relata?
- What is the ontological significance of symmetries in physical theories?
- How does spacetime emerge from the quantum phenomena?

We invite original research papers on topics related to the general description of the planned volume.

The deadline for submissions is **January 15, 2014**. Please send your manuscripts to **tbigaj@ucsd.edu**. We aim to make the final decisions regarding the publication of submitted contributions by the end of April 2014.

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