

Call for Applications:

SCIENTIFIC COLLABORATOR

in the project 'To and Fro: Scientific Metaphysics at Physics's Frontiers'

University of Geneva

The Department of Philosophy in Geneva solicits applications for a research position ('collaborateur scientifique'), starting 1 April 2018 or as soon as possible thereafter. The position is funded by the Swiss National Science Foundation grant 'To and Fro: Scientific Metaphysics at Physics's Frontiers'. The position will be funded for up to 21 months from the starting date.

The successful candidate will be expected to contribute to the project's research independently and in collaboration with Professor Christian Wuthrich. They will be expected to participate in weekly meetings of the Geneva Symmetry Group during term, and help with the administration and organization of the group's activities. Fluency in English is required.

Please find more information on the project at the end of this ad. More information on the Geneva Centre for Philosophy of Science can be found at <http://www.unige.ch/lettres/philo/recherche/research-groups/geneva-centre-philosophy-science/>. More information on the Geneva Symmetry Group can be found at <https://genesymmetrygroup.wordpress.com/>.

Applicants with strong backgrounds in metaphysics (particularly laws of nature, causation, philosophy of mind), philosophy of physics (particularly spacetime, quantum physics), and the relevant physics (particularly quantum gravity) will be strongly preferred, but candidates with backgrounds in only some of these areas will also be considered. The Ph.D. must be in hand at the time of employment.

The position is fixed-term for up to 21 months. The salary is competitive. Some research funds for travel to relevant conferences are available.

Applications must contain a cover letter detailing the pertinent experience for the position, a CV, a one-page research statement describing the work to be accomplished for the project including publication plans, one or two writing samples, and three letters of reference. The letters of reference must be sent under separate cover, i.e., directly by the letters writers or their administrator and not by the candidate. All materials should be sent to Professor Christian Wuthrich at christian.wuthrich@unige.ch.

Review of the files will begin on 20 November 2017 and will continue until the position is filled. The competition for this position opens on 20 November and closes on 31 December 2017.

Applications from women and underrepresented minorities are particularly encouraged.

For more information, please contact Professor Christian Wuthrich at christian.wuthrich@unige.ch.

To and Fro: Scientific Metaphysics at Physics's Frontiers

Scientific metaphysics is a recently much discussed approach in metaphysics that aims to bridge the artificial gap between contemporary analytical metaphysics and science by promoting a strong interrelationship between the two fields. In this context, the project explicitly considers the two directions of the relationship between contemporary analytical metaphysics and current fundamental physics, taking space and time as an exemplar for the interaction between the two. Consequently, the two interrelated parts of the project aim to travel the road between scientific metaphysics and the frontiers of physics in the two directions. In the first part 'From metaphysics to physics', the project aims to show how the tools of functionalism as developed in the philosophy of mind and metaphysics can help to resolve the conceptual problems related to the absence of standard space and time at the quantum gravity level, in particular regarding a threat of empirical incoherence. In this context, the project aims to develop a new model of functional emergence of the empirically relevant spatio-temporal features from a non-spatio-temporal ontology suggested by the current main research programs in quantum gravity. Thus, tools from metaphysics are employed to enable a successful interpretation of fundamental physical theories. Traveling in the other direction, 'From physics to metaphysics', the second part of the project aims to redefine central metaphysical conceptions concerning laws of nature and causation in the light of current research on space and time at the frontiers of physics; the goal is to update and to enrich these traditional metaphysical debates with novel inputs from contemporary fundamental physics. We aim to generalize the two main families of conceptions--namely reductive and non-reductive ones--regarding laws of nature and causation to the non-spatio-temporal setting suggested by quantum gravity.

The project implements what is argued to be a fruitful--indeed ultimately inevitable--dialogue between contemporary analytical metaphysics and current fundamental physics, providing concrete examples of a two-way avenue to and fro metaphysics and physics. The project will be of relevance to a large audience of philosophers, and will bring together metaphysicians, philosophers of science, and physicists through its network of national and international partners.