

## **5-year Postdoctoral Fellowship in Philosophy of Physics, University of Geneva, Switzerland**

The University of Geneva (<https://www.unige.ch/lettres/philo/en/homepage/>) offers a 5-year fully funded postdoctoral fellowship within Dr. Baptiste Le Bihan's SNSF Starting Grant project *Space, Time and Causation in Quantum Gravity*. The project will be housed at the *Geneva Symmetry Group*, which is part of the Department of Philosophy of the University of Geneva (<https://genevasymmetrygroup.wordpress.com/>).

The salary is competitive. The successful candidate will have access to research funding.

Applications from members of groups that are currently underrepresented in academic philosophy are strongly encouraged.

### **Starting Date**

1<sup>st</sup> September 2023 or as soon as possible thereafter.

### **Scientific Requirements**

Candidates should hold a PhD in philosophy or physics and demonstrate expertise in the philosophy of quantum gravity. The ideal candidate possesses a background in the physics of quantum gravity, contemporary metaphysics and the philosophy of space, time, and causality. Expertise in philosophy of cosmology would be an advantage. The appointee is expected to work on several approaches to quantum gravity in close collaboration with Baptiste Le Bihan.

### **Language Requirements**

Geneva is part of the French-speaking area of Switzerland, but for the purposes of the position only English is mandatory. Candidates must have excellent communication skills in English.

### **Further Information**

Candidates are encouraged to contact Dr. Baptiste Le Bihan ([Baptiste.LeBihan@unige.ch](mailto:Baptiste.LeBihan@unige.ch)) for further details regarding the project and the position.

### **How to Apply**

Applications must be submitted as a single PDF file named [your last name].pdf, starting with the CV with e-mail address on top. Applications must be sent to: [baptiste.lebihan@unige.ch](mailto:baptiste.lebihan@unige.ch). Please indicate "Postdoctoral Application" in the subject line.

They should include the following items:

1. CV
2. Cover letter detailing your research interests and experience
3. Proposal for research to be conducted in the context of Space, Time and Causation (more information about the project than what can be found below is available upon request)
4. Writing sample (one article or chapter)
5. Three names and email addresses for potential academic references

## **Application Deadline**

Applications must be submitted by March 1<sup>st</sup>, 2023, to ensure full consideration.

## **Brief Description of the Project**

Does space exist over and above the objects around us? How does time differ from space? Recent scientific advances herald nothing less than a conceptual revolution regarding those questions with the stunning idea that space and time are not, fundamentally, real. This revolution comes from quantum gravity, a network of research programs in theoretical physics that aim at developing a novel and more explanatory framework for weaving together the knowledge from our current best and most fundamental physical theories: the general theory of relativity and quantum physics. Many approaches to quantum gravity imply that some properties usually considered as the hallmarks of space and time, such as spatial distances or temporal order, do not exist fundamentally and emerge from a more fundamental non-spatiotemporal structure. However, to fully understand the emergence of space and time and its philosophical implications, we must also account for the causal relations that seem to structure the natural world, and enable human beings to interact causally with their environment. Indeed, the non-fundamentality of space and time seems to stand in the way of a straightforward analysis of causal relations in terms of causes and effects, located in space and time in temporal sequences. This raises the question of how to reconceptualize causation in a non-spatiotemporal world. The project aims at articulating and evaluating various conceptions of causation compatible with a fundamentally non-spatiotemporal world.