

## COST & APPLICATION

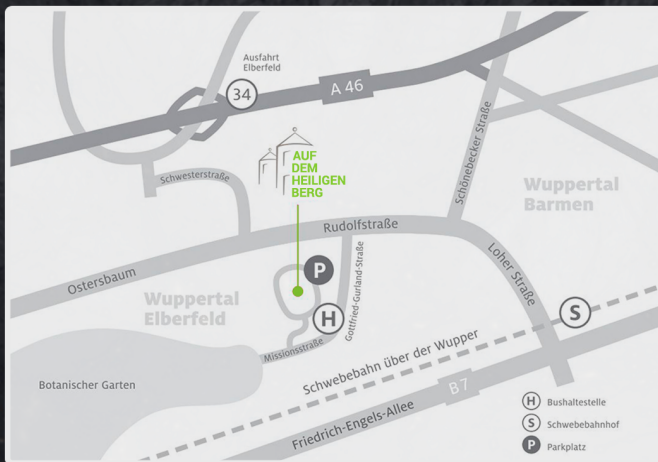
The cost of participation will be € 450 and include full board and lodging. We invite applications from up to 30 participants, from advanced students to early career researchers, from the history, philosophy, and sociology of physics, as well as from physics itself. The application process will be competitive and participants will be selected according to qualification and research focus. Assuming equal qualification, preference will be given to underrepresented groups.

For details on application, please refer to [www.lhc-epistemologie.uni-wuppertal.de/index.php?id=1182](http://www.lhc-epistemologie.uni-wuppertal.de/index.php?id=1182) or scan the QR code on the front of the flyer.

## LOCATION DETAILS

Tagungszentrum Auf dem Heiligen Berg,  
Missionsstraße 9,  
42285 Wuppertal,  
Germany

The venue can be reached by bus no. 643 from Wuppertal main station and is proximate to the exit "Wuppertal-Elberfeld" on expressway 46. The closest airports are Düsseldorf and Cologne/Bonn. Check in will be possible from 1 pm on Monday, 23 July.



## ORGANIZATION & CONTACT

The summer school is an event of the research unit *The Epistemology of the Large Hadron Collider*, based at the *Interdisciplinary Centre for Science and Technology Studies* (IZWT) at Bergische Universität Wuppertal (BUW), Germany. It is financed by the DFG (German Research Foundation) with friendly support by the BUW and the IZWT.

Main organizers:

Adrian Wüthrich (TU Berlin)

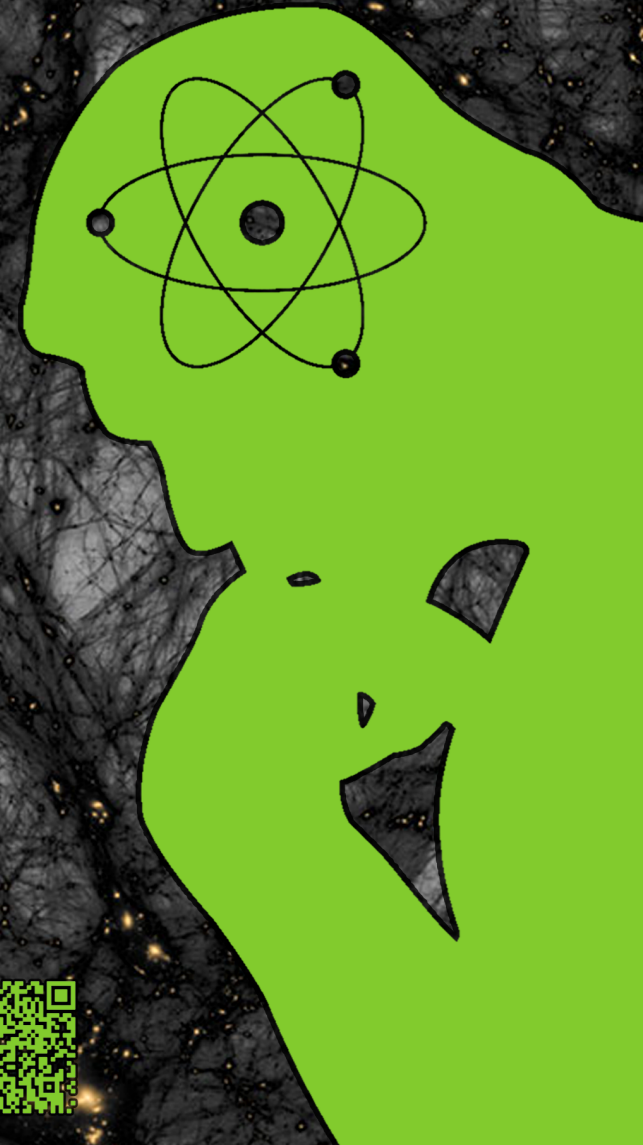
Florian Boge (BU Wuppertal)

In case you have questions, you can contact us at [SummerSchool.ELHC@uni-wuppertal.de](mailto:SummerSchool.ELHC@uni-wuppertal.de)



## INTERNATIONAL SUMMER SCHOOL ON THE PHILOSOPHY, HISTORY AND SOCIOLOGY OF PARTICLE PHYSICS

23-30 July 2018, Wuppertal, Germany





## PARTICLE PHYSICS AT THE CROSSROADS

### Interdisciplinary Perspectives on the Past, Present and Future of Particle Physics

With the discovery of the Higgs boson, the last missing piece of the Standard Model of particle physics has been found. The “hunt” for the Standard Model particles has thus come to an end and new aims and challenges will take centre stage in the practice of particle physics: precision measurements of the Standard Model’s parameters, the search for particles beyond the Standard Model, motivated in part by cosmological evidence, and the exploration of yet uncharted experimental and theoretical territory.

To meet these challenges ever more sophisticated and larger experimental facilities will be required as well as an ever more critical assessment of the virtues and shortcomings of various theoretical proposals. A better understanding of this new phase of particle physics calls for a concerted effort of physics and the social sciences reflecting on it.

## ABOUT THE RESEARCH UNIT

The interdisciplinary research unit *The Epistemology of the Large Hadron Collider* is jointly funded by the DFG (German Research Foundation) and the FWF (Austrian Science Fund). The unit features six projects on the history, philosophy and sociology of particle physics, with members coming from three continents and employed at multiple locations in Europe and the USA. Host institutions of the individual researchers are:

RWTH Aachen (Germany), TU Berlin (Germany), University of Bonn (Germany), Caltech (USA), University of South Carolina (USA), Karlsruhe Institute of Technology (Germany), AAU Klagenfurt (Austria), and BU Wuppertal (Germany).

For more information, please visit

<https://www.lhc-epistemology.uni-wuppertal.de/>

## SPEAKERS

### Physics

**John Ellis**

*King's College London (UK)*

**Margarete Mühlleitner**

*Karlsruhe Institute of Technology (Germany)*

**Christian Zeitnitz**

*BU Wuppertal (Germany)*

### Philosophy

**Rafaela Hillerbrand**

*Karlsruhe Institute of Technology (Germany)*

**Chris Smeenk**

*Western University (Canada)*

**Kent Staley**

*Saint Louis University (USA)*

### History

**Friedrich Steinle**

*TU Berlin (Germany)*

**Catherine Westfall**

*Michigan State University (USA)*

### Sociology

**Olof Hallonsten**

*Lund University (Sweden)*

**Martina Merz**

*AAU Klagenfurt (Austria)*

## STRUCTURE & TOPICS

The summer school will bring together physicists, philosophers, historians and sociologists of science to address questions such as:

- In which direction do particle physicists expect their field to evolve and what steps are taken to realize this?
- How are their ideas and guiding principles embedded in the current concepts of philosophy of science?
- What are the potentials and limitations of the complementing methods of particle physics and cosmology?
- How did and will the status of experimental and theoretical knowledge change?
- How and why did particle physics begin to require multi-billion Euro facilities and will it continue to do so?

The school will feature a number of morning and evening lectures by distinguished members from each of the respective fields. Additionally, there will be working groups in the afternoon that cover selected topics from particle physics. A selection of participants will also get a chance to present their own work.

## EARLIER EDITIONS

This school is the third in a row of successful schools on the philosophy of particle physics, broadly construed. Its predecessors, the 1st and 2nd International Spring School on Particle Physics and Philosophy, were hosted in Wuppertal during spring 2011 and 2014 respectively, and each supported by the IZWT and the BU Wuppertal.