

Rethinking Foundations of Physics

Traditional conferences and subject-specific workshops offer little room for having in-depth discussions about the foundations of physics in an open, creative and speculative way. Since its first meeting in 2013, this workshop has offered a platform for engaging in such discussions.

The workshop centers on discussions in small groups. The aim of these is to reveal implicit assumptions in physics, to clarify the conceptual core of its guiding ideas and to explore new ways of thinking about problems in basic research. Ideally, the workshop thus bridges the gap between deep critical thinking and creative brainstorming. To lay the ground for these sessions, there will be talks given by the participants.

The following general questions convey the spirit of the workshop and may serve as guidelines for more specific subjects of the discussion sessions:

Which mathematical, conceptual, and experimental paradigms underlie modern formulations of QM, GR, and QFT?

Can they be relaxed or changed? If so, how?

Which new mathematical developments could be relevant for future foundations?

Are there promising new or non-standard experimental possibilities?

The workshop is aimed at PhD students and Postdocs in physics, mathematics and philosophy. Participants are not required to have substantial knowledge in all modern physical theories, nor do they have to be currently working on basic research questions. We look forward to applications from people who are passionate about conceptual questions, open to other fields and, most importantly, eager to engage in deep discussions.

The deadline for applications is January 14, 2018. For information on how to apply, and further examples of the type of topics to be expected, please see the website.

Date: 17 March - 24 March 2018
Place: Mountain cabin
Dorfgastein, Austria
Participants: 18
Total fee: 350€ (includes accommodation, shuttle to the cabin, all meals, and nonalcoholic beverages)
Financial support for both workshop fee and travel expenses is available.



www.rethinking-workshop.org

Organisers: Johannes Kleiner (Leibniz University of Hannover) Robin Lorenz (University of Oxford) Jan-Hendrik Treude (University of Konstanz) Federico Zalamea (Université Paris Diderot)

Basic Research Community for Physics e.V.