



Programme

Welcome and Introduction

Jonathan Home, ETH Zurich

Talks

Xavier Dumusque, University of Geneva

Igor Pikovski, Stevens Institute of Technology

Tevong You, University of Cambridge

Q&A

**Networking Reception in cooperation with
Global Food Summit and Cyber Valley**

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RETHINK Physics

Wednesday, 6 November 2019

18.00 h

Museum für Naturkunde, Tristan Lounge
Invalidenstraße 43, 10115 Berlin



Physics is an ongoing quest to understand the mysteries of nature that continues to transform scientific understanding and human society. This symposium brings together three Branco Weiss Fellows who will take you from the infinitesimal to the infinite, from the known to the unknown. Join them to share the excitement of pursuing questions at the frontiers of our understanding.



Jonathan Home has been an Assistant Professor (tenure track) for Experimental Quantum Optics and Photonics, Physics Department of the ETH Zurich, since 2010. His research focus is investigations of quantum state engineering, simulation and information processing with trapped atomic ions. Using the precise control available with this technology, he investigates interactions between a quantum system and its environment, and whether these can be used both to engineer states involving correlations unique to quantum mechanics and to implement quantum information tasks. He is also interested in implementing novel quantum control in microfabricated ion traps, making use of the small length scales which are achievable.



Xavier Dumusque is a Swiss astronomer that obtained his PhD from the University of Geneva and Porto in 2012. He then moved to the USA, at the Harvard-Smithsonian Center for Astrophysics, to continue his research on finding and characterizing planets similar to Earth outside of the solar system. After 3 years abroad, he returned to Geneva, thanks to a Branco-Weiss fellowship, where he will soon become assistant professor.



Igor Pikovski is a theoretical quantum physicist. He works in quantum information and quantum optics theory, with a focus on controlling quantum phenomena and studying how gravity and quantum physics can meet in experiments. Igor obtained his PhD in 2014 from the University of Vienna and was then a Postdoctoral Fellow at Harvard University. He is now Assistant Professor at Stockholm University in Sweden and at Stevens Institute of Technology in NJ, USA. Igor is also the founder of Quantum Technology Consulting, a company focused on education and advisement in the quantum technology sector.



Tevong You is a Branco Weiss fellow in theoretical physics at CERN and the University of Cambridge. His basic motivation is answering the following big questions: What are the elementary building blocks of nature? What fundamental laws govern their interactions? He studies the implications of data on theories and vice versa, in particle physics, cosmology and dark matter.