



UNIVERSITÄT
LEIPZIG

Fakultät für Physik und Geowissenschaften

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Physikalisches Kolloquium

Dienstag, 24. Januar 2023 um 17:00

Vertr.-Prof. Dr. Philipp Bitzenbauer

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Preparing the future quantum natives: A journey through quantum physics education research

Quantum technologies have outgrown mere fundamental research in laboratories over recent years and have significant disruptive potential in a wide range of fields. Beyond technological innovations, special attention is to be devoted to the active participation of society as a whole in the second quantum revolution – in particular, to create awareness among the public for the importance of modern quantum technologies for everyone's life today and in the future.

Quantum physics education starting in high school is required to educate the future quantum natives: In this talk, I will bridge the gap between projects from (a) curricular development research focusing on a field-tested teaching concept aimed at introducing students to the quantum world via quantum optics experiments, and (b) empirical research exploring teaching and learning quantum physics on the high school level. Taken together, both perspectives converge into a theoretical framework which allows to describe learners' conceptual change from classical to quantum thinking and may serve as a springboard for future research and teaching practice.



Venue: Universität Leipzig, Faculty of Physics and Earth Sciences
04103 Leipzig, Linnéstraße 5, Lecture Hall for Theoretical Physics

Before the lecture, coffee and cookies are offered in front of the lecture hall.

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