

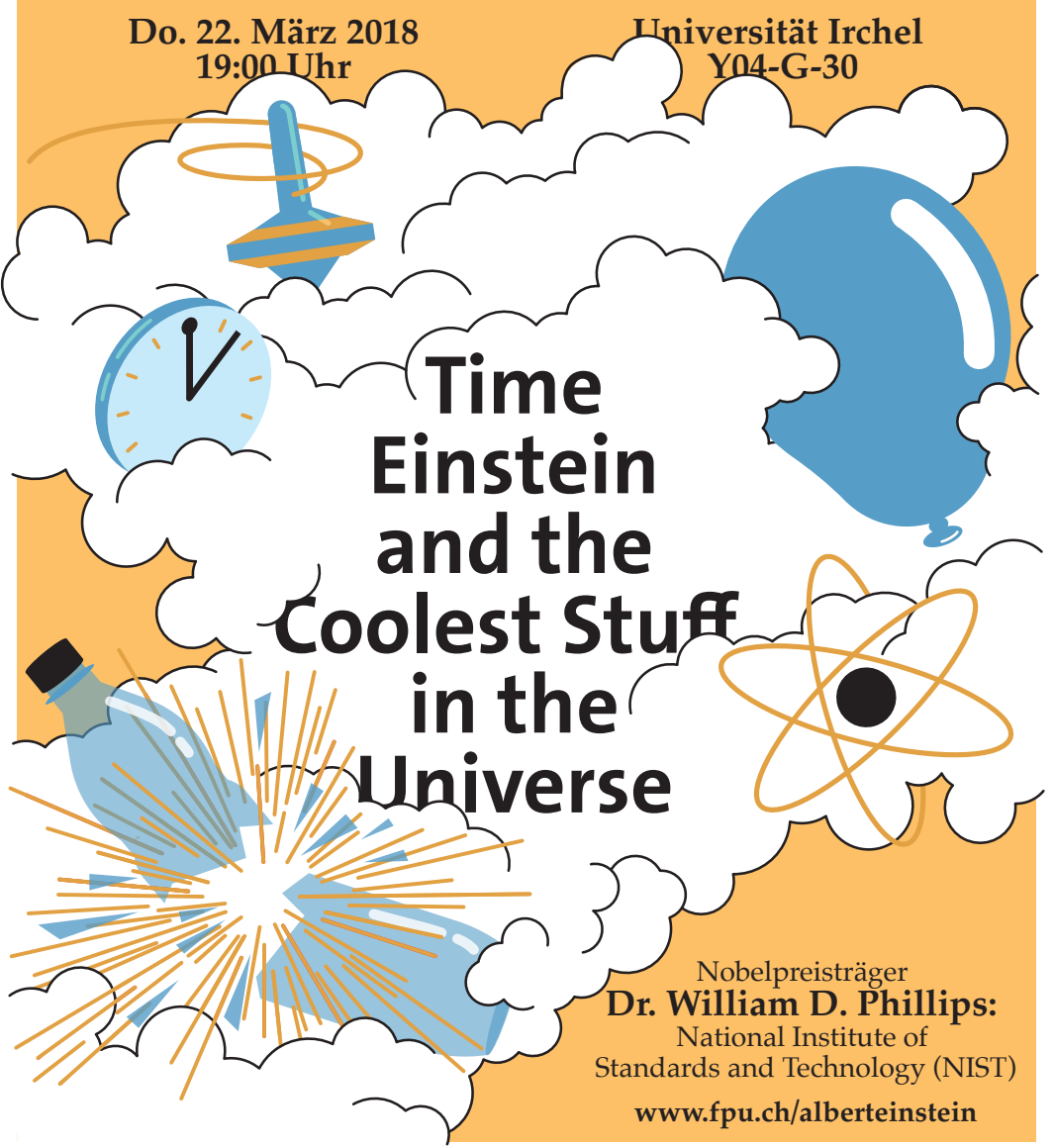


**Universität
Zürich** UZH

Physik-Institut

Do. 22. März 2018
19:00 Uhr

Universität Irchel
Y04-G-30



Time Einstein and the Coolest Stuff in the Universe

Nobelpreisträger
Dr. William D. Phillips:
National Institute of
Standards and Technology (NIST)
www.fpu.ch/alberteinstein

Time Einstein and the Coolest Stuff in the Universe

At the beginning of the 20th century Einstein changed the way we think about Time. Now, early in the 21st century, the measurement of Time is being revolutionized by the ability to cool a gas of atoms to temperatures millions of times lower than any naturally occurring temperature in the universe. Atomic clocks, the best timekeepers ever made, are one of the scientific and technological wonders of modern life. Such super-accurate clocks are essential to industry, commerce, and science; they are the heart of the Satellite Navigation System, which guides cars, airplanes, and hikers to their destinations. Today, the best primary ato-

mic clocks use ultracold atoms, achieve accuracies of about one second in 300 million years, and are getting better all the time, while a new generation of atomic clocks is leading us to re-define what we mean by time. Super-cold atoms, with temperatures that can be below a billionth of a degree above absolute zero, use, and allow tests of, some of Einstein's strangest predictions.

This will be a lively, multimedia presentation, including exciting experimental demonstrations and clear explanations about some of today's hottest (and coolest) science.



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