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## GRK-NanoFab-COLLOQUIUM

on Monday, 09 September 2024 at 01:00 pm  
in Newton Building, Room 2010

**Dr. Stephan Schlamminger**

National Institute of Standards and Technology (NIST), Gaithersburg USA

### Experimental Gravitation: What we know --- and don't

Historically, the theory of gravitation was constructed first through inductive reasoning based on observations and later refined through deductive reasoning with the equivalence of acceleration and a uniform gravitational field as a core tenet. In any case, experiments played an important role in testing the main and the alternative theories of gravitation. In this talk, I'll give an overview of experimental gravitational work. In the talk, I will focus on laboratory experiments but will mention satellite and astronomical observations in passing.

#### CV of the speaker

Stephan Schlamminger, grew up on a farm not far from here. As a boy, he was fascinated by the platform scale and weight set his parents used to sell the farm's products. Fueled by this curiosity, he enrolled at the University of Regensburg to study physics. He used a balance again while working on his Ph.D. at the University of Zurich, where he measured the gravitational constant – an experiment that is comparable to weighing the Earth. After several years as a postdoc at the University of Washington in Seattle working in gravitational physics, he could not resist the opportunity to join NIST as a technical leader of the Kibble balance project. Fun fact: Dr. Schlamminger enjoys baking bread and always weighs the ingredients instead of measuring by volume.

**We cordially invite all interested persons to this colloquium.**

Lecture language: english