



PHYSICS COLLOQUIUM

Speaker: **Prof. Natasha Holmes**
Cornell University



Topic: **Putting the Experiment Back in the Lab**

Time and place: Tuesday, May 16, 2023, **2:50 pm**
The colloquium will be held in as an online-only event.

Online participation possible:

Zoom-Meeting: Meeting-ID: 631 3817 8900 / passcode: PK-SoSe23

<https://tu-dresden.zoom.us/j/63138178900?pwd=RVVZM3N4azdmNmVlQ2RWUTZ0TkxXdz09>

Host: Prof. Gesche Pospiech

Abstract: What is the purpose of practical physics laboratory work? Often instructional labs are structured such that students perform experiments to observe or discover classic physics phenomena. In this talk, I'll describe our research that has identified significant issues with this use of the lab from limited impacts on students' understanding of the phenomena to encouraging students to "massage" their data to reproduce the expected results. I'll then present data on students' learning, perceptions, and experiences that instead motivate using labs to develop students' understanding of experimental physics and associated skills.

Bio: BSc. (Hons), Physics, University of Guelph, 2009. MSc., Physics, University of British Columbia, 2011. PhD., Physics, University of British Columbia, 2015. Post-doctoral Researcher, Stanford University, 2015-2017. Assistant Professor, Physics, Cornell University, 2017.

Get-Together (online)

The colloquium will be followed by a Get-Together with Prof. Dr. Natasha Holmes via Zoom (access: see below, start approx. 4:30 p.m.). All students and staff are invited to talk to the speaker and discuss female perspectives on the academic career, work-life balance and the professional life as a professor.

<https://tu-dresden.zoom.us/j/67572712389?pwd=TzJlKzFTeStrOHhZaFh5cE9NT05NUT09>

Meeting-ID: 675 7271 2389 / passcode: GetTog-23

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