



PHYSICS COLLOQUIUM and GET-TOGETHER

Speaker:

Prof. Jan-Philipp Burde

Professor for Physics Education,
University of Tübingen



Topic:

The EPo-EKo Project as an Example of Design-Based Research

*Time and
place:*

Tuesday, July 1, 2025, **2:50 pm** – hybrid event

The colloquium will be held in REC/C213.

Online participation possible:

Zoom-Meeting: Meeting-ID: 631 3817 8900 / passcode: PC-SoSe25

<https://tu-dresden.zoom-x.de/j/63138178900?pwd=TIuGawPz1dtDA6VzO2N1XdqqI7bE6b.1>

Host:

Jun.-Prof. Salome Flegr

Abstract:

The so-called “simple” electric circuit has turned out to be surprisingly challenging in educational contexts - especially because many students fail to understand electric voltage as an independent physical quantity and instead interpret it merely as a property of electric current. At the same time, numerous studies document a persistently low level of interest in physics among secondary school students. Against this backdrop, the binational EPo-EKo project (“Electricity with Potential – Electricity in Context”) has developed research-informed teaching concepts aimed at making basic electric circuits easier to understand and more interesting for lower secondary students. In my talk, I will first give a brief introduction to design-based research, then offer insights into the development of two exemplary teaching concepts created within the project, and present initial empirical findings on their effectiveness in the classroom.

Bio:

Jan-Philipp Burde is a Professor of Physics Education at the University of Tübingen since 2019, where he also serves as Dean of Studies for the teacher training programmes in Physics and Astronomy. He studied Physics and English with a focus on education at the University of Kassel (degree in 2012), completed his teacher training in England (2013), and earned his doctorate at Goethe University Frankfurt (2018). His research explores how to foster students' interest in and conceptual understanding of electric circuits, as well as the educational potential of emerging technologies in physics education.

Get-Together:

The colloquium will be followed directly by a Get-Together with Prof. Jan-Philipp Burde in REC/B101 (around 4:00 p.m.). All students and staff are invited to talk to the speaker and discuss perspectives on the academic career, work-life balance and the professional life as a scientist.

Mitglied von:



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