

# PHYSIKALISCHES KOLLOQUIUM

AM 28. NOVEMBER 2022 UM 17 UHR C.T.

IM GROßEN HÖRSAAL

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## PITFALLS IN TEACHING QUANTUM MECHANICS

OLIVER PASSON

*UNIVERSITÄT WUPPERTAL*

Given the decade long debate about its meaning and interpretation, quantum mechanics is surrounded by an air of mystery. This talk tries to disentangle the “conceptual problems” of quantum physics from the “operational understanding” which has been achieved. I then discuss common misrepresentations in the educational literature which often result from including elements from the alleged “quantum mystery” where conceptual clarity is both, needed and possible. After the talk the audience should be in the position to answer the following questions:

Why are there so many different interpretations of quantum mechanics?

Why has the foundational debate (apparently) no impact on the application and development of QM?

What should be avoided when talking and teaching QM?