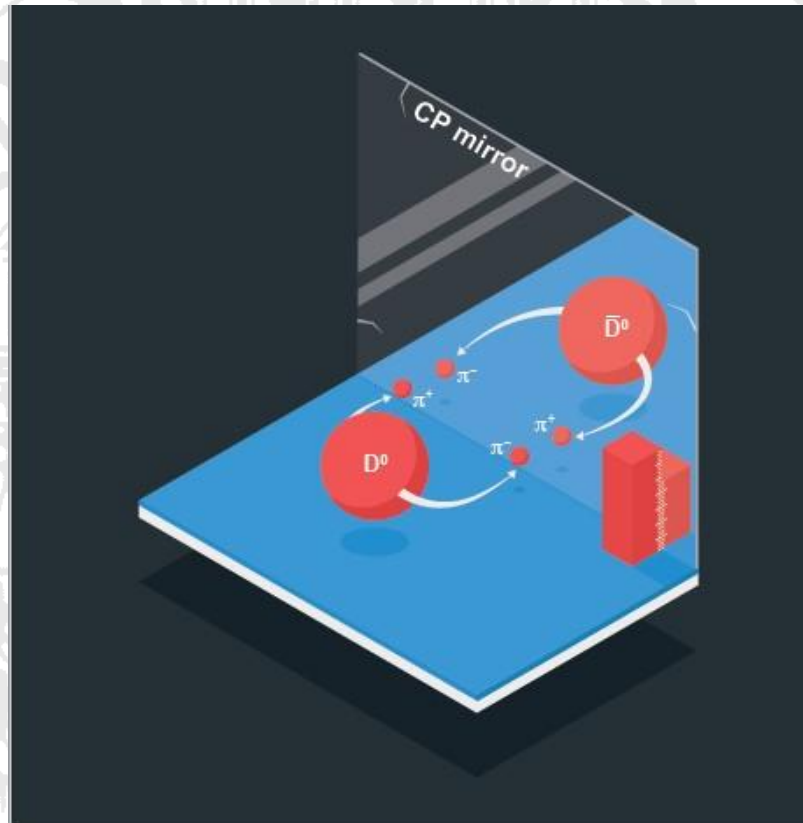


SONDERKOLLOQUIUM

AM 15. FEBRUAR 2023 UM 09:00 UHR

BIBLIOTHEK, WESTBAU PHYSIK



Precision Physics with Charming Antimatter

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The Standard Model of particle physics has described extremely successfully the interactions of the most fundamental building blocks of matter for decades. This includes the description of a tiny difference in the behaviour of matter and antimatter particles, called CP violation. Since its discovery in particles containing strange quarks in the 1960s and numerous precision tests with particles containing bottom quarks over the last two decades, the LHCb experiment reported the discovery of CP violation in decays of charmed particles in 2019. This landmark result started the era of high-precision CP violation searches with charmed particles. This talk will review the evolution of these measurements and the latest results. It will also cover the technological challenges of current and future experiments.