



KCETA Colloquium

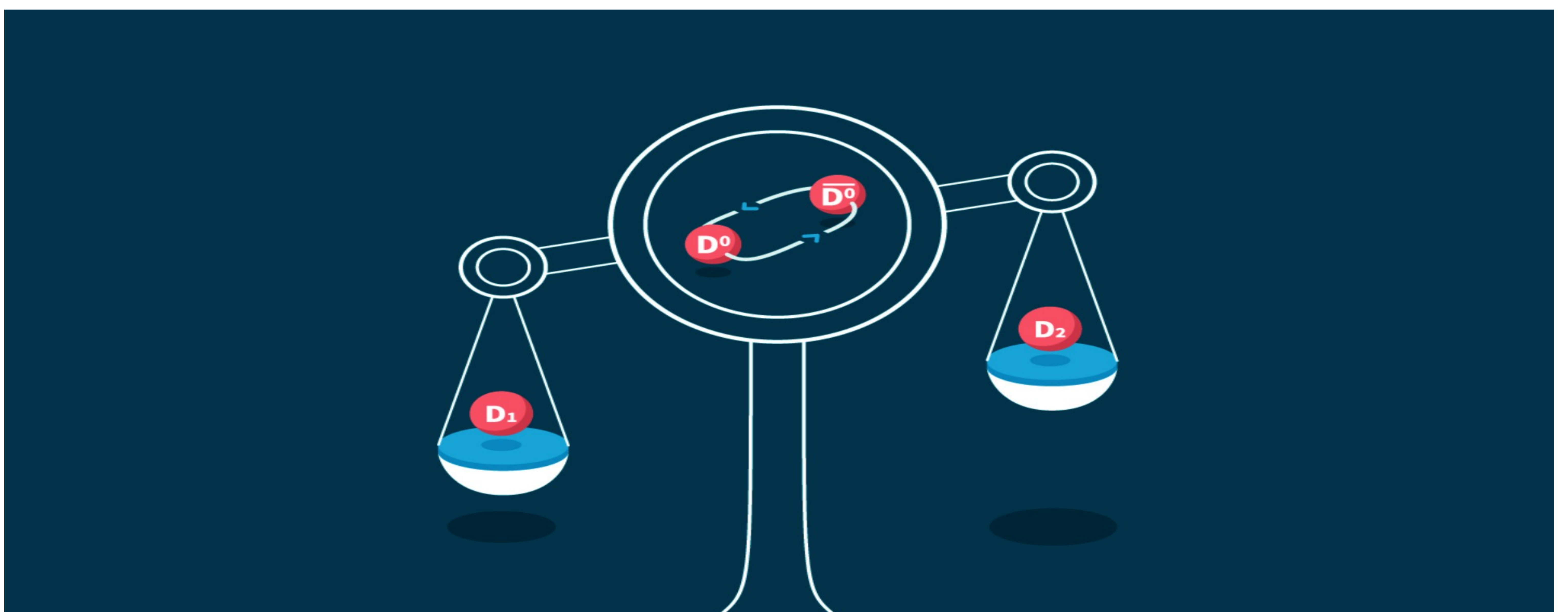
The Charming Side Of Antimatter

Thursday, December 19, 2024

Kleiner Hörsaal A (CS) 15:45 - 17:00

Prof. Dr. Marco Gersabeck
(Albert-Ludwigs-Universität Freiburg)

Antimatter is among the most mysterious of nature's fundamental building blocks due to its near-complete absence in the known universe. After an introduction into the fundamental building blocks of matter and antimatter, I will focus on a special class of particles that contain both: a matter quark and an antiquark. The electrically neutral ones among these particles have the ability to change into their antimatter partners and back. I will motivate why we need such complex experiments as the LHC with its huge detectors, specifically LHCb. The LHCb experiment is specialised in finding matter-antimatter differences and I will discuss some remarkable discoveries of both huge and tiny differences and motivate the road ahead towards particularly charming measurements that require a completely new detector concept.



Please note: The colloquium will also be live-streamed to B401 SR 410 (CN).