LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

ARNOLD SOMMERFELD CENTER FOR THEORETICAL PHYSICS

Sommerfeld Theory Colloquium

Prof. Giulio Malavolta

Bocconi University Milan

Quantum Cryptography and Computational Thinking

One of the great insights of cryptography and computational complexity is the notion of computationally-bounded algorithms, which allow us to reason about properties that would otherwise be impossible to achieve. Could these ideas also be relevant to quantum information and quantum mechanics? In this talk, we discuss how computational thinking changes the landscape of quantum cryptography: What primitives can we construct, how definitions change, and what are the outstanding open problems. If time permits, we will also discuss new foundational questions on quantum information, motivated by cryptographic applications.

Wednesday, 10 June 2026, 16:15h, Room A348, Theresienstr. 37/III

Prof. Michael Walter