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# Conceptual design report of muonium to antimuonium conversion experiment (MACE)

*Thursday, 17 October 2024 09:00 (30 minutes)*

The spontaneous conversion of muonium to antimuonium is one of the interesting charged lepton flavor violation phenomena, offering a sensitive probe of potential new physics and serving as a tool to constrain the parameter space beyond the Standard Model. Utilizing a high-intensity muon beam, a Michel electron magnetic spectrometer and a positron transport solenoid together with a positron detection system, MACE aims to discover or constrain this rare process at the conversion probability beyond the level of $10^{-13}$. This talk will release the conceptual design report for MACE.

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