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Up-to-date results and upgrade plans of the MEG experiment

Friday 6 July 2012 16:00 (15 minutes)

The MEG experiment at the Paul Scherrer Institut (Switzerland) aims at searching for the Lepton-Flavour Violating (LFV) muon decay, mu+ -> e+ gamma, with unprecedented sensitivity. Such decay is forbidden within the Standard Model, nevertheless all its viable extensions predict a branching ratio for this decay in the 10^{-14} to 10^{-12} range. Data collected in 2009 and 2010, which corresponds to a total of 1.8x10^{14} muon decays, allowed us to set the most stringent limit to date on charged LFV (BR(mu->e gamma < 2.4x10{-12} at 90% C.L.). The status of the experiment during the last data taking will be presented together with preliminary analysis of 2011 data.
In parallel with the data-taking, the MEG collaboration has recently started to discuss the upgrade plan in order to perform the experiment with three times higher beam intensity and better measurement resolutions, and already started several associated R&D. In addition to the future prospects, the detailed studies of upgrade will also be presented.

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