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The MEG experiment result and the MEG II status (10' + 5')

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The MEG experiment at PSI is searching for the lepton-flavour violating decay $\mu \rightarrow e + \gamma$ with unprecedented sensitivity. MEG set the most stringent experimental bound to date, based on the analysis of 2009, 2010 and 2011 data, to be $< 5.7 \times 10^{-13}$ with an associated sensitivity of about 7.7×10^{-13} . I will present the MEG final result which has an associated sensitivity of about 5.3×10^{-13} . I will also show the reconstruction improvements in the positron tracking code and the detector and target alignments.

An experiment upgrade is conceived in order to further improve the sensitivity by one order of magnitude in three years of data taking. It will take benefit of the MEG infrastructures as the beam lines, the magnet and the calorimeter cryostat and technology, while the detectors and the TDAQ electronics were re-designed to cope with a doubled muon stopping rate in the target. The MEG II experiment is currently under construction, the commissioning is foreseen between the end of this year and the first months of 2017. I will overview the new detector and describe the most important improvements.

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