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The First Result of MEG II on Search for mu -> e + gamma

Friday 20 October 2023 09:00 (1 hour)

The MEG II Collaboration will present the first result of its search for the flavor-violating muon decay, mu -> e + gamma. MEG II, the upgrade of MEG, started physics data taking in late 2021 and is continuing to accumulate data to search for the lepton-flavor-violating muon decay with a target sensitivity of 6 x 10ˆ-14 at 90% C.L., i.e., an order of magnitude improvement over MEG.
The upgraded detectors (the 2.7-ton liquid xenon photon detector, the cylindrical drift chamber, and the pixelated timing counters), together with the new radiative decay counter, provide larger acceptance, increased granularity and better resolutions, allowing to deal with higher background rates than the previous MEG detectors.
The result of the analysis of the data taken in 2021, which has a sensitivity close to the final MEG result, will be presented. By today, more than 10 times larger data sample than 2021 has already been accumulated. Future plan of the experiment will also be discussed.

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Session Classification: MEG II