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☒373☒ Searches for Dark Sectors Weakly Coupled to Muons at the NA64 μ experiment at CERN

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NA64 μ aims at searching for light dark sector particles weakly coupled to muons at the CERN SPS. These searches are sensitive to dark photons in a mass region larger than 0.1 GeV, which is not accessible with NA64e. The combination of both experiments will allow to completely explore the very interesting thermal light dark matter parameter space. NA64 μ will be also sensitive to Z' bosons in the MeV-GeV mass range which could additionally provide an explanation for the recently confirmed (g-2) muon anomaly. In this talk, I will describe the status of the approved 2021 pilot run and NA64 μ future prospects.

Primary authors: SIEBER, Henri Hugo (ETH Zurich (CH)); MOLINA BUENO, Laura (ETH Zurich (CH)); BANTO OBERHAUSER, Benjamin (ETH Zurich (CH)); DEPERO, Emilio (ETH Zurich (CH)); CRIVELLI, Paolo (ETH Zurich (CH))

Presenter: SIEBER, Henri Hugo (ETH Zurich (CH))

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