

Abstract Submitted
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Search for a new gauge boson in a fixed-target experiment at CERN SPS MIKHAIL KIRSANOV, INR Moscow, CERN-P348 COLLABORATION — A fixed-target experiment at the CERN SPS utilizing the active beam dump and missing energy approach for the searches of a new gauge boson (A') with sub-GeV mass and mixing with ordinary photon is discussed. Electrons impinging on a high- Z target produce bremsstrahlung A' 's, decaying either to an e^+e^- pair or invisibly to dark sector particles. The status of the experiment and the expected sensitivity in the test run in 2015 are presented.

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