Abstract Submitted for the HAW09 Meeting of The American Physical Society

A new Muon-to-Electron Conversion Experiment at J-PARC<sup>1</sup> ED HUNGERFORD, University of Houston, COMET COLLABORATION — A new experimental search for coherent, neutrinoless, muon-to-electron conversion from a muonic atom has been proposed for the Japanese Proton Accelerator, J-PARC, now under commissioning. The experiment is completing a conceptual design which proposes a single event sensitivity in the branching ratio of lepton number violating to lepton conserving decays of approximately 2.6 x  $10^{-16}$ . This talk briefly describes the experiment and its objectives.

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Date submitted: 30 Jun 2009

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