Abstract for an Invited Paper for the HAW05 Meeting of The American Physical Society

## Leptogenesis -creation of universe's baryon asymmetry-TSUTOMU YANAGIDA, University of Tokyo

It is a longstanding problem in particle physics and cosmology to explain the observed baryon-number asymmetry in the universe. We show that small Majorana mass for neutrino is the most natural prediction of the baryogenesis (leptogenesis) in the early universe. Thus we stress that observation of neutrinoless double beta decay of nuclei is the key to establish the baryogenesis scenario, rather than of proton decay.