Abstract Submitted for the APR05 Meeting of The American Physical Society

Beyond Standard Model Higgs Search at the Large Hadron Collider SATYAKI BHATTACHARYA, UCSD, CMS COLLABORATION — The experiments at the Large Hadron Collider (LHC) will probe for Higgs boson in the mass range between the lower bound on the Higgs mass set by the experiments at the Large Electron Positron Collider (LEP) and the unitarity bound (~1 TeV). Strategies are being developed to look for signatures of Higgs boson as predicted by the Standard Model as well as for signatures of Higgs bosons predicted by theories beyond Standard Model. In particular, search for a Minimal Supersymmetric Standard Model (MSSM) Higgs boson will be a major part of the Higgs search efforts at LHC. In this paper search strategies for Higgs beyond Standard Model will be discussed with emphasis on MSSM Higgs discovery channels which cover large regions of the MSSM parameter space.

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Date submitted: 15 Mar 2005 Electronic form version 1.4