

Abstract Submitted  
for the HAW05 Meeting of  
The American Physical Society

**Neutrino Flavor Changing Neutral Currents in Gravitational Collapse and the Early Universe** PHILIP AMANIK, GEORGE FULLER, BEN GRINSTEIN, University of California, San Diego — Flavor changing neutrino interactions are a predicted feature of some extensions of the Standard Model. We assess the impact of these processes in stellar collapse and in the very early universe. We find the stellar collapse environment to be sensitive to neutrino flavor changing scattering on heavy nuclei. In general we find that astrophysical environments may offer a probe of these processes at levels below current experiment bounds.

Philip Amanik  
University of California, San Diego

Date submitted: 25 May 2005

Electronic form version 1.4