

## **POSSIBLE DETECTION OF RELIC NEUTRINOS AND DETERMINATION OF THEIR MASS: QUANTITATIVE ANALYSIS**

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Ultra high energy neutrinos might scatter on cosmological relic neutrinos producing Z bosons, which can decay hadronically producing protons (Z-burst). We analyze the propagation of the produced protons to the earth and compare their predicted spectrum with the observed UHECR spectrum. Based on this analysis we determine the mass of the relic neutrinos. The necessary ultra high energy neutrino flux is in agreement with present upper limits from experiments but should be detected in the near future.