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## Oscillation of high energy neutrinos in Choked GRBs

It is believed that choked gamma-ray bursts (CGRBs) are the potential candidates for the production of high energy neutrinos in GeV-TeV energy range. These CGRBs outnumber the successful GRBs by many orders. So it is important to observe neutrinos from these cosmological objects with the presently operating neutrino telescope IceCube. We study the three flavor neutrino oscillation of these high energy neutrinos in the presupernova star environment which is responsible for the CGRB. For the presupernova star we consider three different models and calculate the neutrino oscillation probabilities, as well as neutrino flux on the surface of these stars. The matter effect modifies the neutrino flux of different flavors on the surface of the star. We have also calculated the flux of these high energy neutrinos on the surface of the Earth. We found that for neutrino energies below about 10 TeV the flux ratio does not amount to 1:1:1, whereas for higher energy neutrinos it does.

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