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## A search for pseudo-Dirac neutrinos in the Cosmos

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The most fundamental question on neutrino physics is whether their fermionic nature is Dirac or Majorana. Nevertheless, this should not be taken as a dichotomy. In fact, there is a scenario in which neutrinos are Majorana but behave for all practical purposes as Dirac; they would be *pseudo-Dirac* neutrinos. In this case, the only hope for determining their true nature is searching for active-sterile oscillations, which would only develop on astrophysical scales. In this talk, we consider the limits (and hints) on the pseudo-Dirac scenario derived by studying the neutrinos that originated from the supernova explosion in 1987. We further explore the future sensitivity on active-sterile oscillations in the case that a Supernova occurs at 10 kpc and by studying the diffuse supernova neutrino background.

**Primary author:** PEREZ, Yuber

**Presenter:** PEREZ, Yuber

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