## PLANCK2025 - The 27th International Conference From the Planck Scale to the Electroweak Scale



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## Early universe neutrino production

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We conduct a general study of the various constraints on the existence of primordial high-energy neutrinos (PHENu), emitted as early as the neutrino decoupling era and propagating through the Universe nearly unaltered since their emission. We explore the parameter space in which such neutrinos could be detected and confront our findings with current cosmological and observational constraints.

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