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Search for sterile neutrinos in the NOvA near and far detectors

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The NOvA experiment, which uses two functionally identical liquid scintillator detectors over an 810 km baseline in the Fermilab NuMI beam, has the potential to set world-leading limits on the θ_{24} and θ_{34} parameters governing sterile neutrino oscillations by searching for a deficit of neutral current interactions compared to that predicted at the two detectors. An updated analysis with the NOvA antineutrino beam dataset will be presented. Limits on the sterile neutrino mixing parameters will be shown and plans for future analyses, including a two-detector joint fit utilizing a covariance matrix to constrain systematics, will be discussed.

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