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Search for a Light Sterile Neutrino at Daya Bay

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The Daya Bay reactor neutrino experiment's unique configuration of multiple baselines from six 2.9 GW_{th} nuclear reactors to eight antineutrino detectors deployed in two near (effective baselines $\sim 500 \text{ m}$ and $\sim 600 \text{ m}$) and one far ($\sim 1600 \text{ m}$) underground experimental halls makes it possible to test for oscillations to a fourth (sterile) neutrino in the $10^{-3} \text{ eV}^2 < |\Delta m_{41}^2| < 0.3 \text{ eV}^2$ range. In this talk, I will present Daya Bay's latest results on the search for light sterile neutrino mixing. The relative spectral distortion due to the disappearance of electron antineutrinos was found to be consistent with that of the three-flavor oscillation model. The resulting limits on $\sin^2 2\theta_{14}$ constitute the world's best in most of the sub-eV mass region.

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