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## Anti-Be Appearance at T2K using VALOR

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VALOR is a well established neutrino fitting group that is leading several neutrino oscillation analyses in T2K, producing world leading results. The analysis framework has been validated and optimised for both a hybrid Bayesian-Frequentist approach to fitting parameters, where the systematic parameters are marginalised, as well as a frequentist analysis, that consists of the likelihood ratio maximisation as a function of all the fit parameters. The VALOR group is involved in many other neutrino oscillation experiments such as DUNE and Hyper-K, which goal is the measurement of  $\delta$ CP , and the Fermilab Short Baseline Neutrino program, a novel experiment aiming to search for sterile neutrinos. In this talk the statistical techniques used in the neutrino oscillation analyses performed by the VALOR group are shown.

Summary

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