P3.077  **Super-Kamiokande solar neutrino results and NSI analysis**

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*on behalf of Super-Kamiokande collaboration*

Super-Kamiokande detects the Cerenkov light from elastic scattering of solar $^8$B neutrinos with electrons in its ultra-pure water. The directionality, energy and timing of the recoil electrons determines the interaction rate, the flight path, as well as the energy dependence of the $^8$B neutrinos’ electron-flavor survival probability $P_{ee}$. While the $P_{ee}$ below $\sim 1$ MeV is equivalent to averaged vacuum neutrino flavor oscillations, the $P_{ee}$ above $\sim 7$ MeV is suppressed by the Mikheyev-Smirnov-Wolfenstein (MSW) resonance resulting from the interaction of the solar neutrinos with solar matter. In the same way, Earth matter effects influence $P_{ee}$, leading to an apparent Day/Night effect. Non-standard interactions (NSI) extend the MSW model to include interactions between the quarks in matter and neutrinos, thereby modifying $P_{ee}$. We will present the signatures of matter effects on solar neutrinos in Super-Kamiokande and present limits on NSI parameters, in particular couplings to the down quark.