Erratum: On the description of nonunitary neutrino mixing [Phys. Rev. D **92**, 053009 (2015)]

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The constraint derived from the NOMAD experiment [1] was mistakenly reported in the published version of the paper. Our previous Eq. (38) should actually read

$$\alpha_{11}^2 |\alpha_{21}|^2 \leq 0.0007 \quad (90\% \text{ C.L.}). \quad (1)$$

Combining this limit with those coming from universality at Eqs. (12) and (15), the following 90% C.L. bounds (1 d.o.f.) are obtained:

$$\alpha_{11}^2 \geq 0.989, \quad \alpha_{22}^2 \geq 0.999, \quad |\alpha_{21}|^2 \leq 0.0007. \quad (2)$$

FIG. 1. Conversion probability for a fixed neutrino energy $E_\nu = 1$ GeV. The solid (black) curve shows the standard conversion probability, with $\delta = -I_{123} = 3\pi/2$. The nonunitary case is illustrated for $\alpha_{11} = 1$, $\alpha_{22} = 0.9997$, and $|\alpha_{21}| = 0.0264$. In the left panel, two values for the new CP phase parameter I_{NP} are considered: $\pi/2$ (dashed/magenta line) and $3\pi/2$ (dotted/green line), while in the right panel we take $I_{NP} = 0$ (dashed/magenta line) and π (dotted/green line).

FIG. 2. Correction to the standard muon neutrino survival probability for different values of the new CP phase parameter I_{NP} , with the remaining parameters fixed as in Fig. 1.

Updated versions of Figs. 3 and 4 using the new reported bounds are shown here as Figs. 1 and 2. All the main conclusions of our article remain unchanged.

- [1] P. Astier *et al.*, Search for $\nu_\mu \rightarrow \nu_e$ oscillations in the NOMAD experiment, *Phys. Lett. B* **570**, 19 (2003).