Erratum: Lepton-number-violating four-body tau lepton decays
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We have found a bug in our FORTRAN code used to integrate over the four-body phase space of $\tau^- \rightarrow \nu_\tau l^- l^- X^+$ ($l = e, \mu$ and $X = \pi, K, \rho, K^*$) decays. The upper limits on the branching ratios as a function of the Majorana mass m_N of the heavy neutrino obtained by assuming $|V_{eN}|^2 = |V_{\mu N}|^2 \leq 3 \times 10^{-3}$ get modified and are shown in Figs. 1 and 2 (these plots replace Figs. 3 and 4 in the published version). The exclusion limits in the $|V_{lN}|^2$ vs m_N region of parameter space
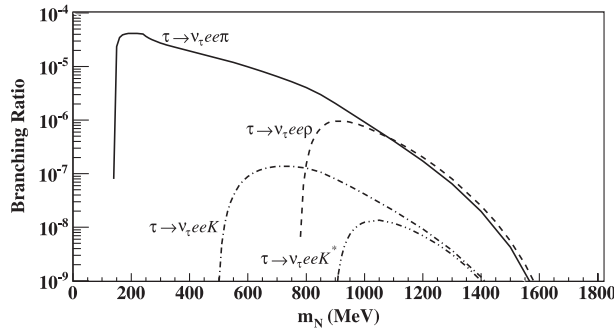

FIG. 1.   Branching fraction of $\tau^- \rightarrow \nu_\tau e^- e^- X^+$ decays as a function of the Majorana neutrino mass.
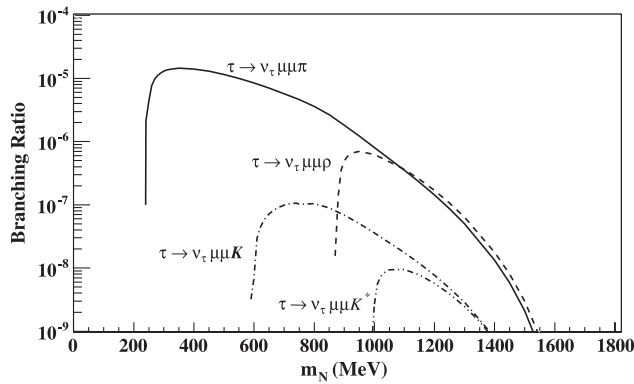

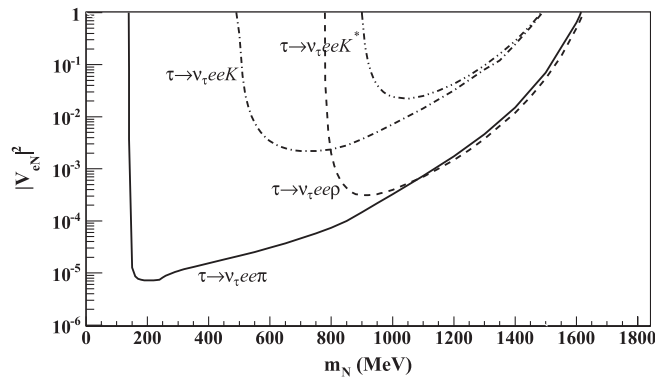FIG. 2.   Same as in Fig. 1 for the same-sign dimuon decay channels.

FIG. 3.   Exclusion region in the mixing vs mass Majorana neutrino parameter space from $\tau^- \rightarrow \nu_\tau e^- e^- X$ decays.
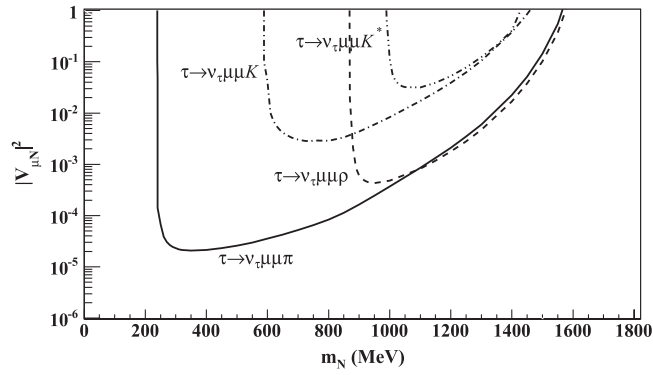
FIG. 4.   Same as in Fig. 3 for the same-sign dimuon decay channels.

obtained by assuming a common branching ratio of $O(10^{-7})$ for all decay channels are modified as shown in Figs. 3 and 4 (they replace Figs. 5 and 6 in the published version).

Our conclusion regarding our proposed four-body lepton number violating tau decay channels are strengthened. These corrected results show that these decay channels allow one to exclude a wider region of the parameter space of heavier Majorana neutrinos than those provided by heavy meson $D^-, B^- \rightarrow l^- l^- M^+$ three-body decays.