



Erratum to: A search for $\mu^+ \rightarrow e^+ \gamma$ with the first dataset of the MEG II experiment

MEG II Collaboration

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This erratum corrects Fig. 6 of the original article. There was a rounding error in the evaluation of the upper limit and confidence level curve for the constant PDF analysis used for cross check. Such an error caused distortions in presence of a very small number of fitted signal events and therefore is particularly evident in the distribution of pseudo-experiments for $\mathcal{B}_{90} \lesssim 0.5 \times 10^{-12}$ but it affects the whole range. With the constant PDF approach, the corrected 90% C.L. upper limit on the branching ratio, including systematic uncertainties, is

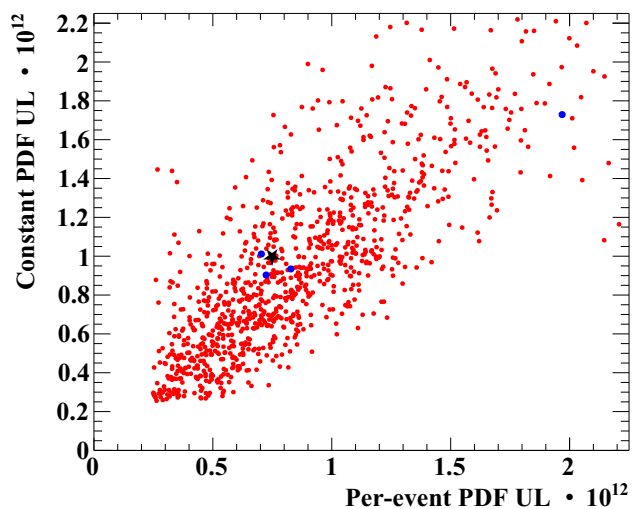


Fig. 6 Comparison of the branching ratio upper limits (without systematic uncertainties) extracted by the two likelihood analyses when run over a common ensemble of pseudo-experiments (red dots). The results obtained on real data are also shown, for the analysis region (black star) and four fictitious analysis regions in the time side-bands: $-3 \text{ ns} < t_{e+\gamma} < -2 \text{ ns}$, $-2 \text{ ns} < t_{e+\gamma} < -1 \text{ ns}$, $1 \text{ ns} < t_{e+\gamma} < 2 \text{ ns}$, $2 \text{ ns} < t_{e+\gamma} < 3 \text{ ns}$ (blue dots)

$\mathcal{B}_{90} = 0.96 \times 10^{-12}$. Also the \mathcal{B}_{90} s in the time side-bands changed.

This correction does not change the results quoted in the original article obtained with the per-event PDF analysis.

Data Availability Statement Data will be made available on reasonable request. [Author's comment: The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.]

Code Availability Statement Code/software will be made available on reasonable request. [Author's comment: The code/software generated during and/or analysed during the current study is available from the corresponding author on reasonable request.]

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