TR from complex radiators

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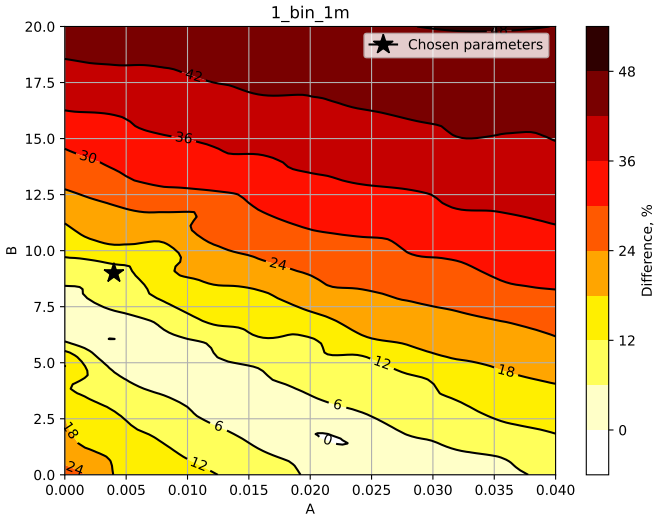
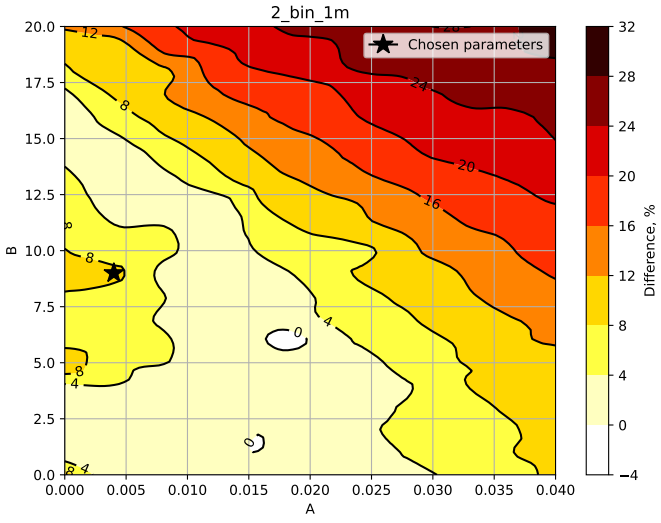
The discrepancy in TR spectra

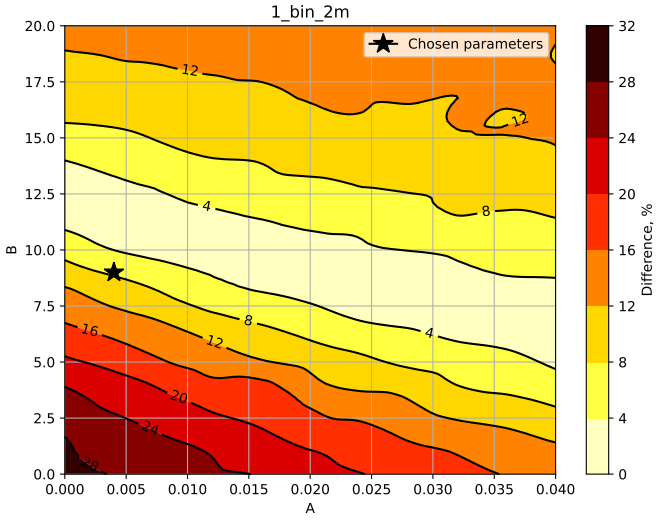
To investigate how data can be reconciled with MC using diffusion, diffusion of the form was used $\sigma_0 = A \cdot E^{1.7} + B$, where the coefficients A and B varied between $A \in [0; 0.04]$ with step 0.004 and $B \in [0; 20]$ with step 1. In total, 230 simulations were performed for each radiator.

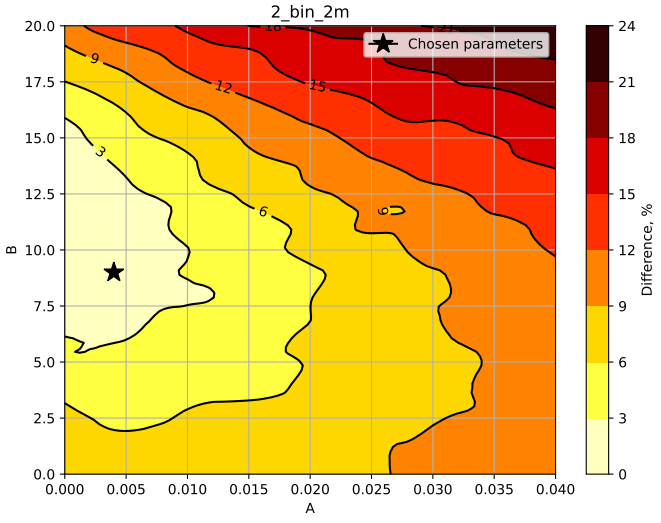
For each simulation, the distribution of photons by the number of pixels was taken and the $\Delta = \frac{|(N_i^{Data} - N_i^{MC})|}{N_i^{Data}}$ was calculated for every bin in histogram.

Result for the first and second bin

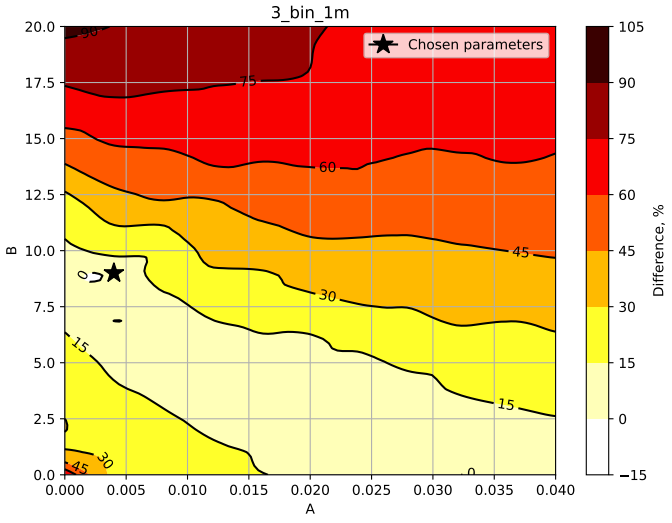


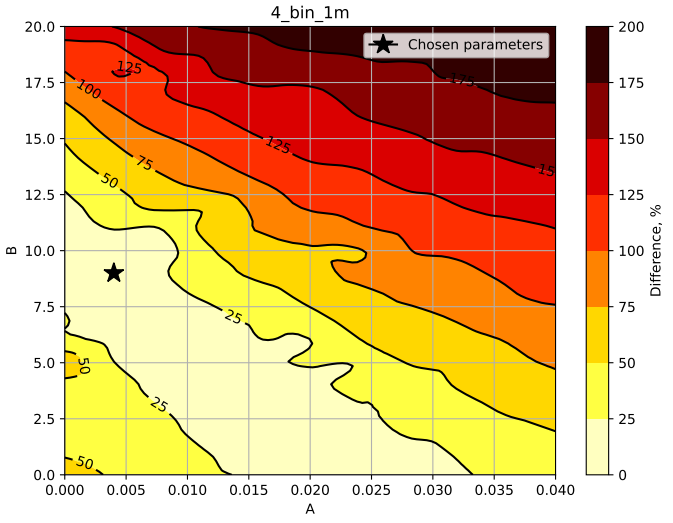


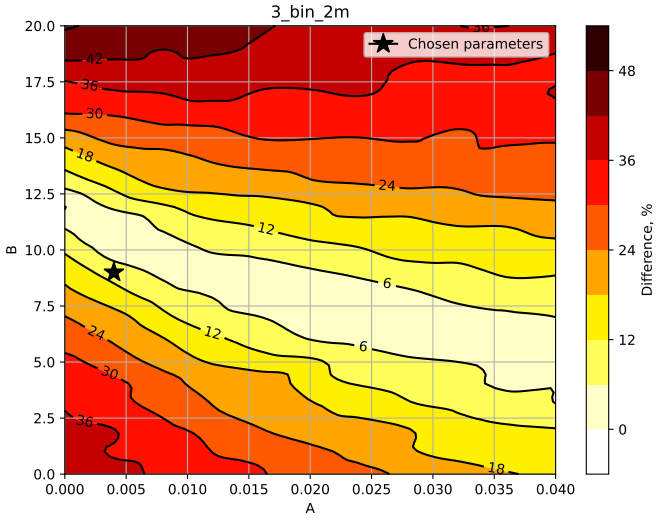


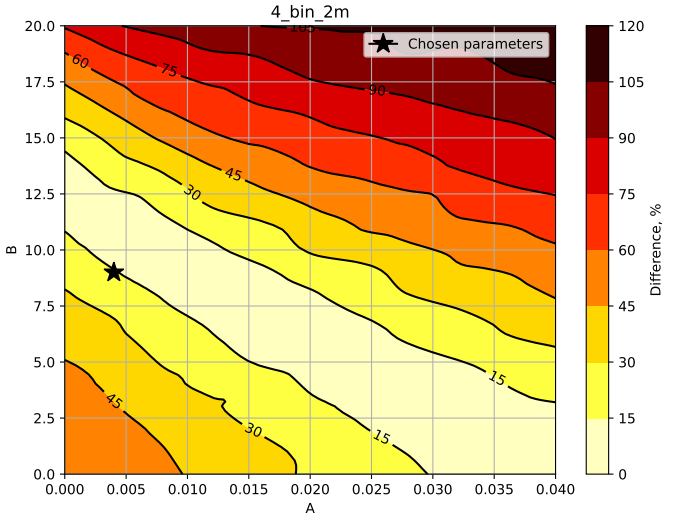


Result for the third and fourth bin



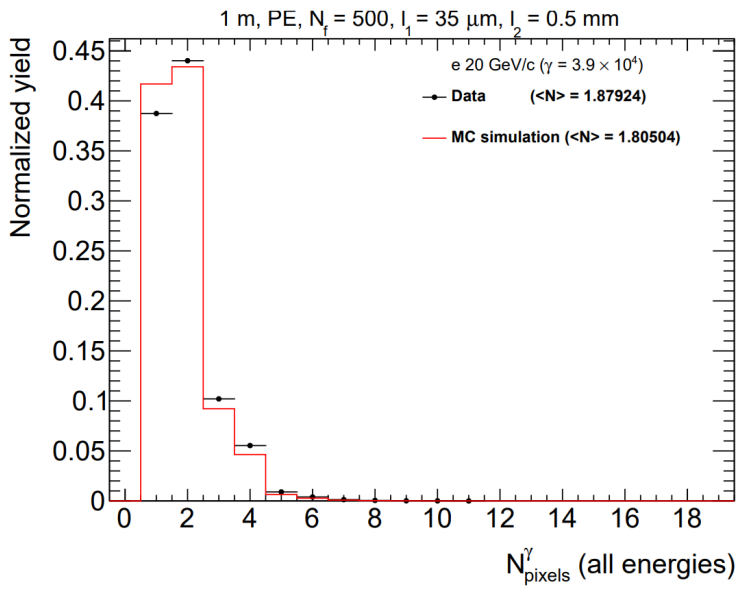


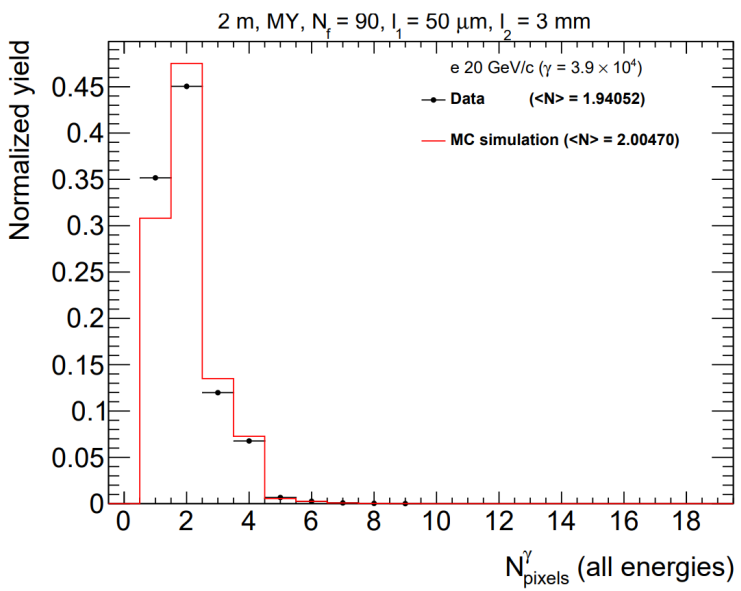




Chosen parameters

For these distributions, the following were calculated $\delta = \sum_i |(N_i^{Data} - N_i^{MC})| \cdot N_i^{MC}$ where the sum was taken for all the bins in the histograms for 1 and 2 meters together. The parameters correspond to the minimum are A = 0.004 and B = 9.





THANKS!