

The following includes supplementary material for the Electronic Physics Auxiliary Publication Service.

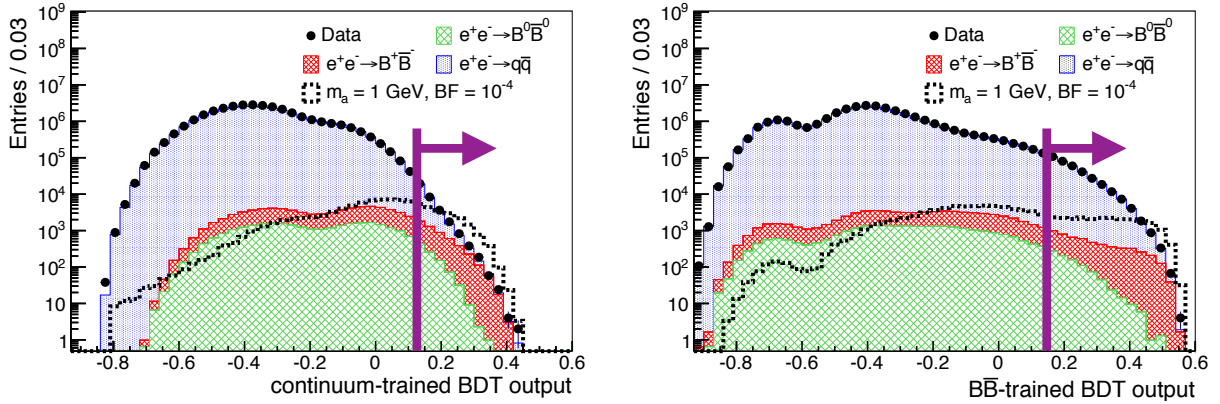


FIG. 6: Boosted decision tree classifier scores for ALP candidates in data, signal MC with $m_a = 1$ GeV normalized to a branching fraction of 10^{-4} , and background MC normalized to the data luminosity. The classifier scores are for BDTs trained on (left) continuum MC; (right) B^+B^- MC. The selections used in the analysis are indicated for each distribution by the arrow.

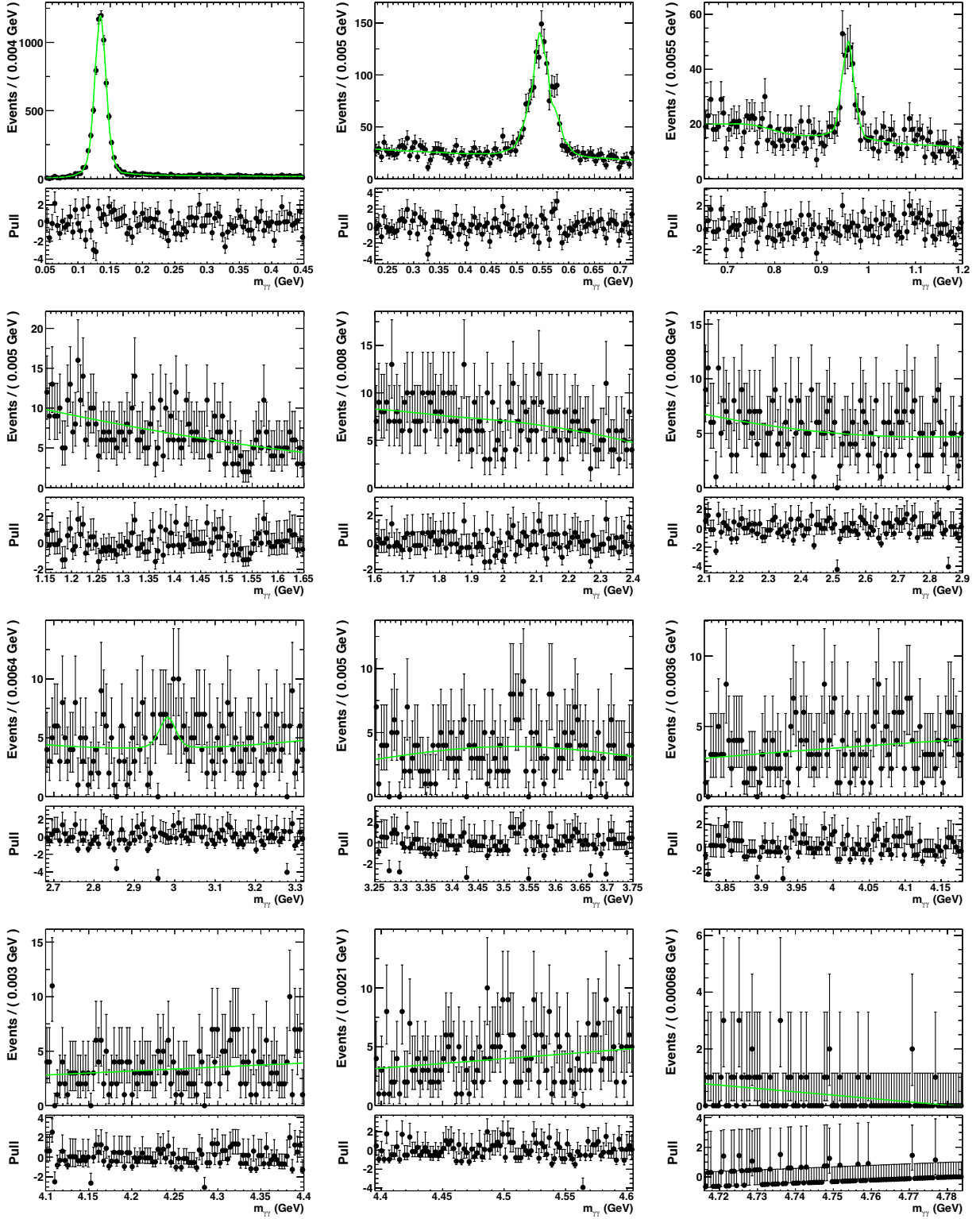


FIG. 7: Fits of our background model to data for a sample of fit intervals used in the ALP search. The green line indicates the best-fit background model, and the points represent data. The fit interval width is determined by the signal resolution as outlined in the main-body text.

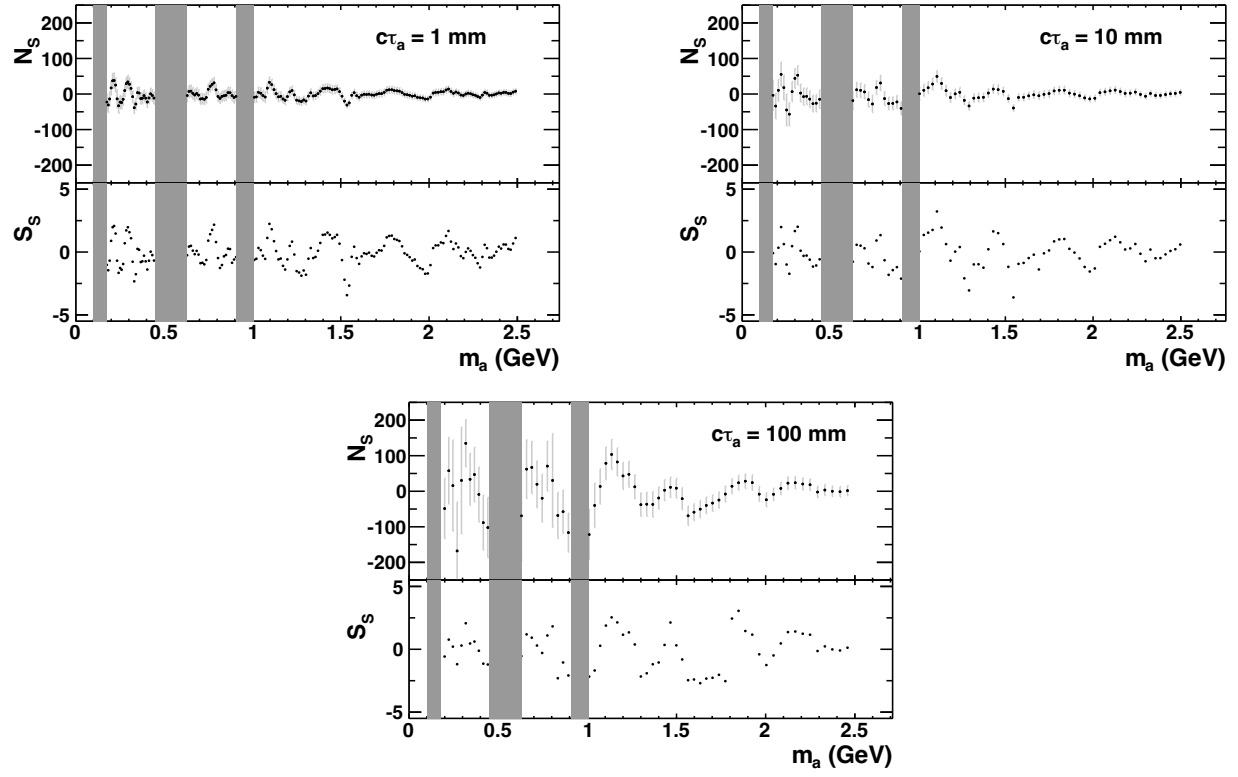


FIG. 8: The distribution of signal events (N_s) and local signal significance (S_s) from fits as a function of m_a for ALP proper decay lengths of 1 mm, 10 mm, and 100 mm. The vertical gray bands indicate the regions excluded from the search in the vicinity of the π^0 , η , and η' masses.