

 $5 \times 10^{4}$ **Figure J.2.** Sensitivity of FLODANCE to the choice of fitting interval size  $n_s$ . Based on ResNet50 trained on the full CIFAR-10 dataset with  $n = 5 \times 10^4$  data points and d=10 classes, resulting in NTK matrices of size  $m=nd=10^5$ . FLODANCE extrapolates log-determinants by fitting a model on submatrices of size  $n_0 = 1$  to  $n_s$ , and extending this fit to larger sizes up to  $n_s$ . (a) Rootmean-square error (RMSE) of the fit in the interval  $[1, n_s]$ , showing increasing

fitting error as  $n_s$  grows. (b) RMSE of extrapolation in the interval  $[n_s, n]$ , which decreases with  $n_s$ . (c) Relative error of predicting the log-determinant at

 $n = 5 \times 10^4$ , again decreasing with  $n_s$ .