



Figure H.1. Log-determinant ℓ_n for $n = 1, \dots, 50,000$, corresponding to $m \times m$ NTK submatrices where $m = nd$ and $d = 10$, from ResNet9 on 64-bit precision (a) and ResNet50 on 32-bit precision (b) trained on CIFAR-10 with 50,000 datapoints. Values are computed using MEMDET with LDL decomposition (black curves, overlaid by colored curves). The orange curves represent theoretical fits based on the parametrization derived in Algorithm 1. Fitting is performed globally over the entire interval $(n_0, n) = (1, 5 \times 10^4)$, demonstrating the accuracy of the theoretical model. The blue curve, corresponding to the right axis (scaled to one-thousandth of the left axis), shows the absolute error.