Online Optimization with $\mathbf{b}_k = \text{sine-sine}^2 - \text{mixed}$ and constant Hessian 10^{2} 10^{-1} Tracking error 10^{-4} 10^{-7} Online gradient 10^{-10} Control-based Sys ID ARX Control-based Baseline 10^{-13} Known b k version 200 400 600 800 1000 Time