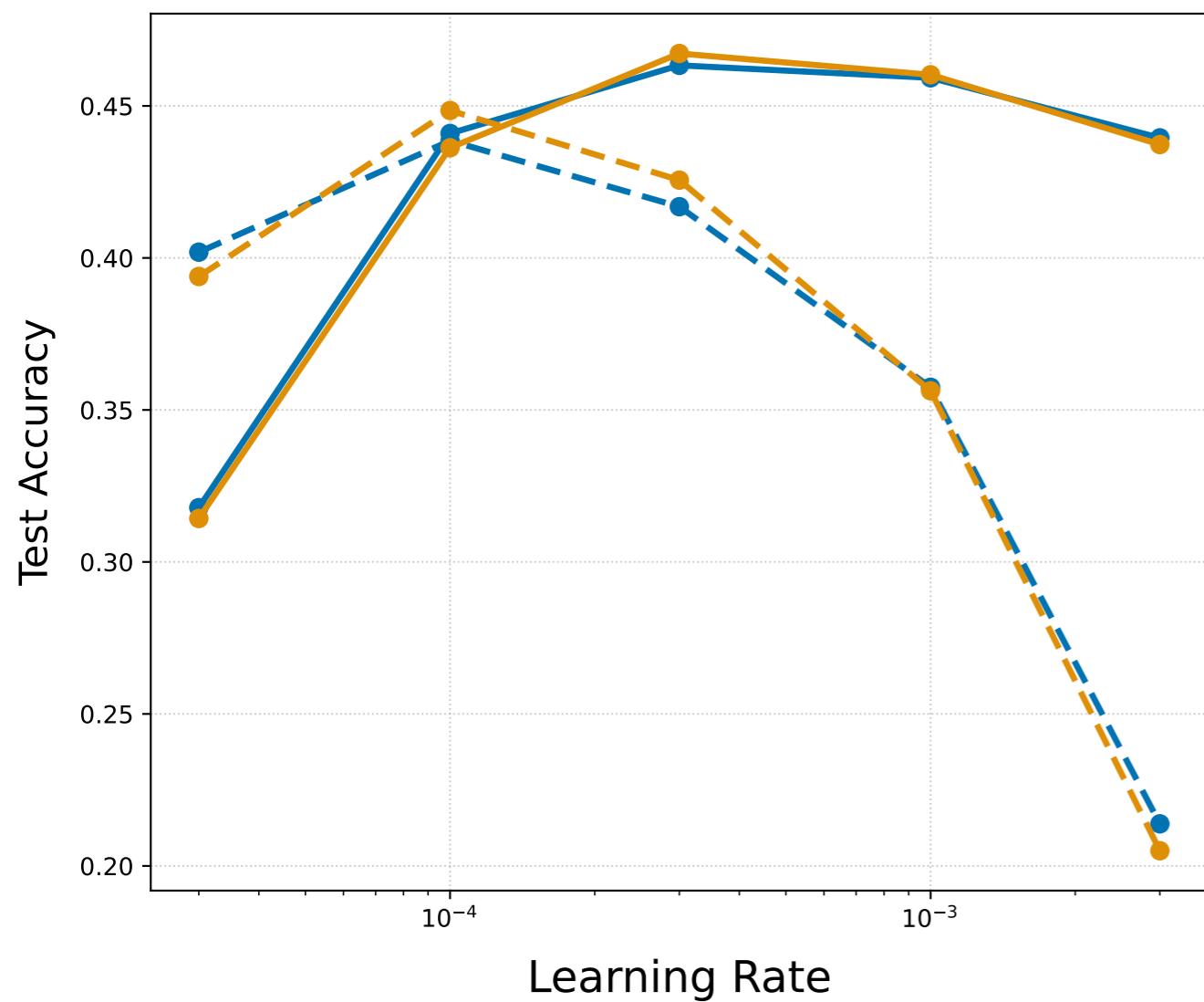
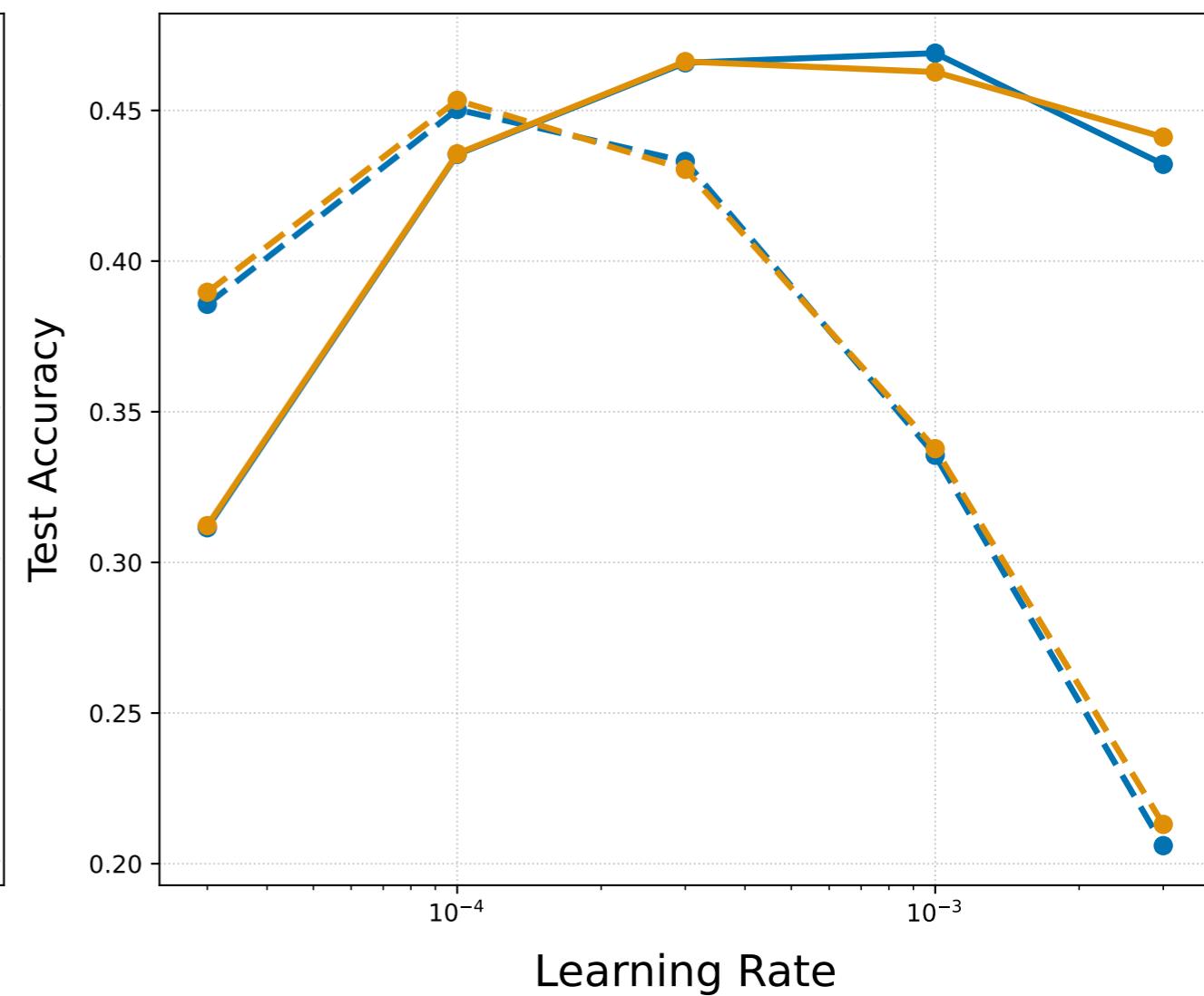


$\beta_1 = 0.9, \beta_2 = 0.999$  $\beta_1 = 0.95, \beta_2 = 0.95$ 

— Bias Correction, Warmup Cosine
— No Bias Correction, Warmup Cosine

— Bias Correction, Constant LR
— No Bias Correction, Constant LR