Running time of increasing hidden state space backward baumWelch forward 0.020 -0.012 -0.03 -0.015 -0.010 -0.02 -0.010 -0.008 -0.01 -0.005 -0.006 variant mean time [s] 0.000 -0.004 - 1 **BLAS** 10 20 20 10 30 30 20 30 40 10 40 40 Conventional posteriorDecoding viterbi CSR 0.020 -RSB 0.015 -0.010 -0.010 -0.005 -0.005 -0.000 -20 30 0 10 40 10 20 30 40 0

hidden states

error bars: standard deviation of 5 replicates input size: 120000, alphabet size: 4