State Fidelity to Ground Truth for a 1-Qubit State @ $T_1 = 100\mu s$, 1000 Shots 1.00 0.95 Fidelity $[{\sf Tr}(\sqrt{\sqrt{
ho}\sigma\sqrt{
ho}})]^2$ 0.90 0.85 Symbols for τ $\tau = 1 \,\mu s$ $\tau = 10 \,\mu s$ $\tau = 20 \,\mu s$ $\tau = 50 \,\mu s$ STABSim (w/o Negativity Sampling) 0.80 $\tau = 100 \,\mu s$ Pauli Twirling 10⁰ 10^{1} $T_1/T_2 \ (T_2 \le 2T_1)$