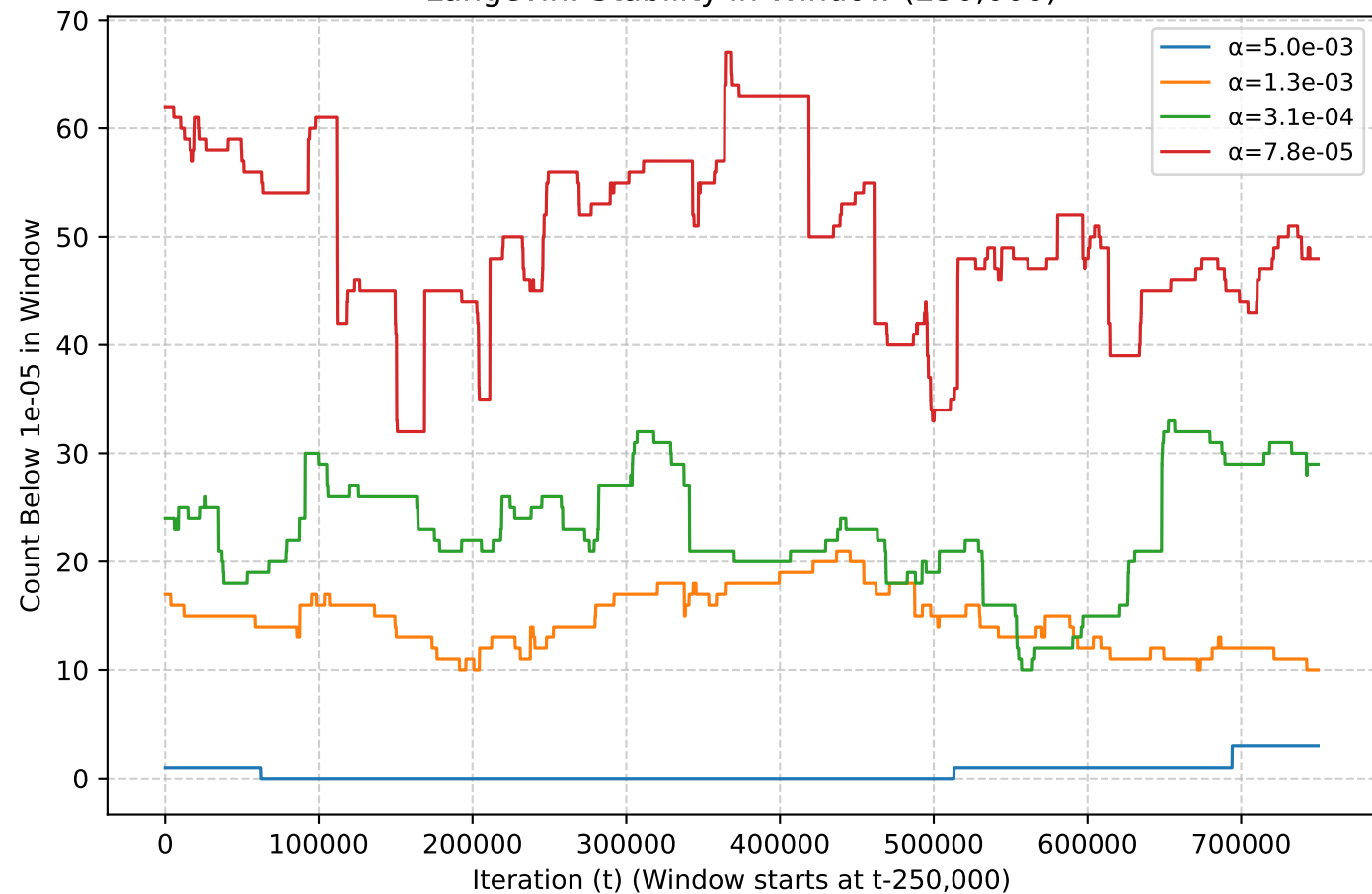Convergence Analysis for Langevin Kernel: Windowed Stability vs. Smoothed Error

Langevin: Stability in Window (250,000)

α=5.0e-03
α=1.3e-03
α=3.1e-04
α=7.8e-05

Count Below 1e-05 in Window

Iteration (t) (Window starts at t-250,000)

Langevin: Smoothed (Rolling Average)

α=5.0e-03
α=1.3e-03
α=3.1e-04
α=7.8e-05

$|\mathbb{E}[\bar{\theta}_t]|$

Iteration (t)