Comparing optimal 1 shot and 2 shot states for N=4, Δ=π

$|r_k|$

$|0, 4\rangle$ $|1, 3\rangle$ $|2, 2\rangle$ $|3, 1\rangle$ $|4, 0\rangle$
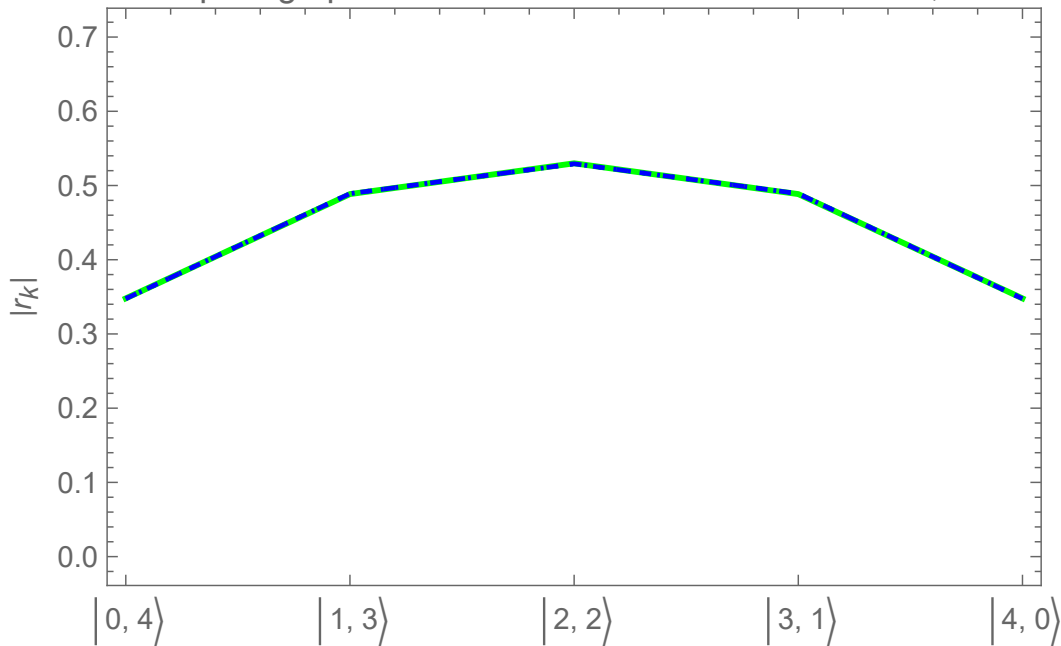
— 1 Shot case ---- 2 Shot case: Shot 1 ⋯⋯ 2 Shot case: Shot 2