## Fidelity Results (the non-squared version)

|  | g=0.00 | g=0.25 | g=0.50 | g=1.00 | g=1.50 | g=2.00 | g=2.50 | g=3.00 |
|---|---|---|---|---|---|---|---|---|
| 1 CSK state | 1 | 0.811 | 0.469 | 0.123 | 0.0474 | 0.0263 | 0.0181 | 0.0141 |
| 16 CSK state | 1 | Infeasible | Infeasible | Infeasible | Infeasible | Infeasible | Infeasible | Infeasible |
| 66 CSK state | 1 | 0.9984 | 0.9811 | 0.831 | Infeasible | Infeasible | Infeasible | Infeasible |
| 116 CSK state | 1 | 0.9998 | 0.9925 | 0.9055 | 0.826 | 0.7585 | 0.6926 | 0.6885 |

## To note

1. The 1 CSK state row gives us the overlap between the initial state and the final solution
2. The infeasibility is when I use the Mosek solver on MATLAB. The SDPT3 solver on MATLAB will return a feasible but bad solution. So don't worry about the infeasibility, we just need to run them on the SDPT3 solver to get a value for fidelity. The only slight issue is that the SDPT3 solver is at least 10x slower...
3. My computer can only handle max 116 CSK states.