

## Data Description

### I. "Raw data"

The raw data of this experiments are measurements used for tomography; due to the hardness to interpret the data, the tomography results are directly provided.

***rhos12 / rhos14 / rhos16***: contains tomography result; for instance, `rhos16(1,:,:)` gives the 4-qubit density matrix of subsystem (q0,q1,q2,q3).

***rhos\_boot\_8 ~ rhos\_boot\_16***: tomography matrix created from bootstrapped data; for instance, `rhos_boot_16(1,100,:,:)` gives the 100-th resample of the 4-qubit density matrix of subsystem (q0,q1,q2,q3).

***calibration.txt***: calibration information of the quantum device at the time of the 16-qubit experiment.

### II. Data for Fig. 7 8 9 11 12

***negativity\_8 ~ negativity\_16***: negativities shown in Fig. 7-9, 11-12.

***error\_bar\_8 ~ error\_bar\_16***: negativities calculated from bootstrapped data; used to estimate confidence intervals in Fig. 7-9, 11-12.