Quantum Simulation Report

Simulation Config

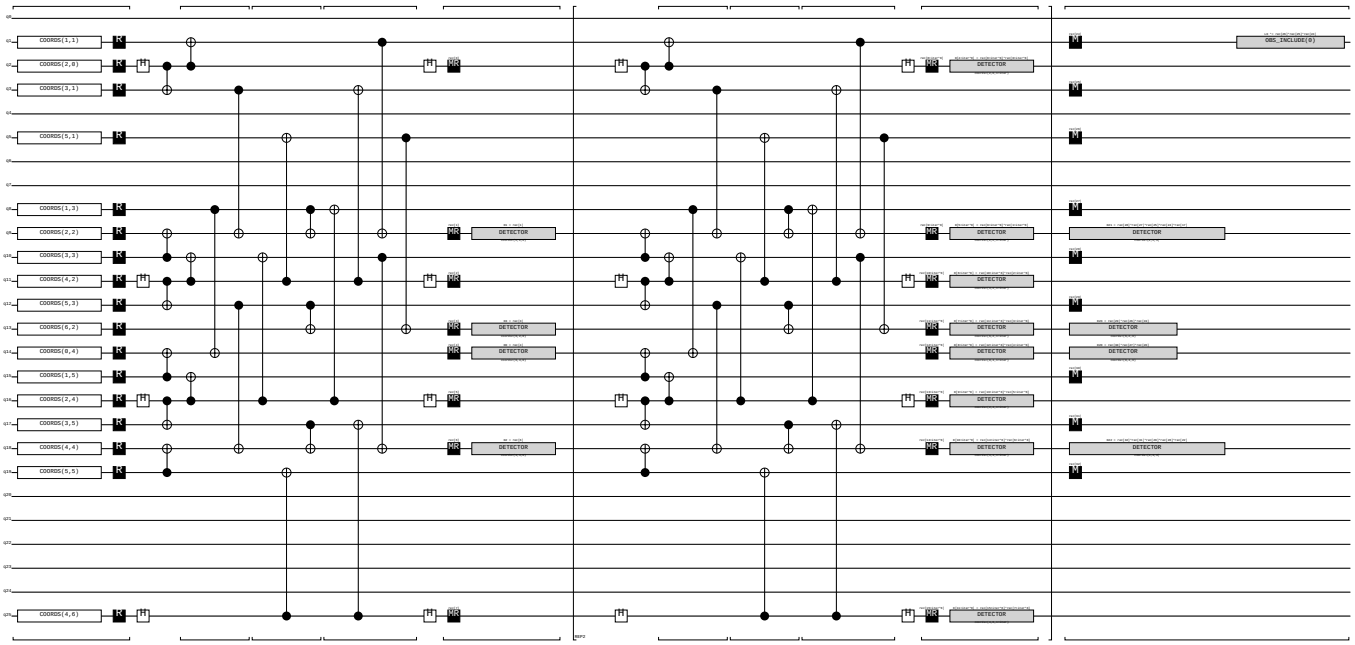
Key	Value
task	surface_code:rotated_memory_z
parameters.distance	3
parameters.rounds	3
parameters.errors.after_clifford_depolarization	0.0
parameters.errors.before_round_data_depolarization	0.0
parameters.errors.before_measure_flip_probability	0.0
parameters.errors.after_reset_flip_probability	0.0
parameters.sampling.seed	5
parameters.sampling.shots	1
parameters.sampling.console_log	True
parameters.mapping.console_log	True
bitstream.exporting	True
bitstream.format	zxd
bitstream.console_log	True
exports.figure.exporting	True
exports.figure.trans_bg	False
exports.figure.type	
exports.figure.file	output/CircuitFigure.svg
exports.circuit.exporting	True
exports.circuit.file	output/CircuitText.txt
exports.output.file	output/output.json
exports.output.prettify	True
exports.pdf_report.exporting	True
exports.pdf_report.file	examples/example_report.pdf

Circuit Text

```
QUBIT_COORDS(1, 1) 1
QUBIT_COORDS(2, 0) 2
QUBIT_COORDS(3, 1) 3
QUBIT_COORDS(5, 1) 5
QUBIT_COORDS(1, 3) 8
QUBIT_COORDS(2, 2) 9
QUBIT_COORDS(3, 3) 10
QUBIT_COORDS(4, 2) 11
QUBIT_COORDS(5, 3) 12
QUBIT_COORDS(6, 2) 13
QUBIT_COORDS(0, 4) 14
QUBIT_COORDS(1, 5) 15
QUBIT_COORDS(2, 4) 16
QUBIT_COORDS(3, 5) 17
QUBIT_COORDS(4, 4) 18
QUBIT_COORDS(5, 5) 19
QUBIT_COORDS(4, 6) 25
R 1 3 5 8 10 12 15 17 19 2 9 11 13 14 16 18 25
TICK
H 2 11 16 25
TICK
CX 2 3 16 17 11 12 15 14 10 9 19 18
TICK
CX 2 1 16 15 11 10 8 14 3 9 12 18
TICK
CX 16 10 11 5 25 19 8 9 17 18 12 13
TICK
CX 16 8 11 3 25 17 1 9 10 18 5 13
TICK
H 2 11 16 25
TICK
MR 2 9 11 13 14 16 18 25
DETECTOR(0, 4, 0) rec[-4]
DETECTOR(2, 2, 0) rec[-7]
DETECTOR(4, 4, 0) rec[-2]
DETECTOR(6, 2, 0) rec[-5]
REPEAT 2 {
    TICK
    H 2 11 16 25
    TICK
    CX 2 3 16 17 11 12 15 14 10 9 19 18
    TICK
    CX 2 1 16 15 11 10 8 14 3 9 12 18
    TICK
    CX 16 10 11 5 25 19 8 9 17 18 12 13
    TICK
    CX 16 8 11 3 25 17 1 9 10 18 5 13
    TICK
    H 2 11 16 25
    TICK
    MR 2 9 11 13 14 16 18 25
    SHIFT_COORDS(0, 0, 1)
    DETECTOR(2, 0, 0) rec[-8] rec[-16]
    DETECTOR(2, 2, 0) rec[-7] rec[-15]
    DETECTOR(4, 2, 0) rec[-6] rec[-14]
    DETECTOR(6, 2, 0) rec[-5] rec[-13]
    DETECTOR(0, 4, 0) rec[-4] rec[-12]
    DETECTOR(2, 4, 0) rec[-3] rec[-11]
    DETECTOR(4, 4, 0) rec[-2] rec[-10]
    DETECTOR(4, 6, 0) rec[-1] rec[-9]
}
M 1 3 5 8 10 12 15 17 19
DETECTOR(0, 4, 1) rec[-3] rec[-6] rec[-13]
```

```
DETECTOR(2, 2, 1) rec[-5] rec[-6] rec[-8] rec[-9] rec[-16]
DETECTOR(4, 4, 1) rec[-1] rec[-2] rec[-4] rec[-5] rec[-11]
DETECTOR(6, 2, 1) rec[-4] rec[-7] rec[-14]
OBSERVABLE_INCLUDE(0) rec[-7] rec[-8] rec[-9]
```

Circuit Diagram



Measurements

Shot 1

Type	Round	Qubit	Coords	Value
ANCX	1	2	[2.0, 0.0]	False
ANCX	1	16	[2.0, 4.0]	True
ANCX	1	11	[4.0, 2.0]	False
ANCX	1	25	[4.0, 6.0]	False
ANCX	2	2	[2.0, 0.0]	False
ANCX	2	16	[2.0, 4.0]	True
ANCX	2	11	[4.0, 2.0]	False
ANCX	2	25	[4.0, 6.0]	False
ANCX	3	2	[2.0, 0.0]	False
ANCX	3	16	[2.0, 4.0]	True
ANCX	3	11	[4.0, 2.0]	False
ANCX	3	25	[4.0, 6.0]	False
ANCZ	1	14	[0.0, 4.0]	False
ANCZ	1	9	[2.0, 2.0]	False
ANCZ	1	18	[4.0, 4.0]	False
ANCZ	1	13	[6.0, 2.0]	False
ANCZ	2	14	[0.0, 4.0]	False
ANCZ	2	9	[2.0, 2.0]	False
ANCZ	2	18	[4.0, 4.0]	False
ANCZ	2	13	[6.0, 2.0]	False
ANCZ	3	14	[0.0, 4.0]	False
ANCZ	3	9	[2.0, 2.0]	False
ANCZ	3	18	[4.0, 4.0]	False
ANCZ	3	13	[6.0, 2.0]	False
DATA		1	[1.0, 1.0]	False
DATA		8	[1.0, 3.0]	True
DATA		15	[1.0, 5.0]	True
DATA		3	[3.0, 1.0]	True
DATA		10	[3.0, 3.0]	False
DATA		17	[3.0, 5.0]	False
DATA		5	[5.0, 1.0]	True
DATA		12	[5.0, 3.0]	True
DATA		19	[5.0, 5.0]	True