

# Squantikz squimports

Saverio Monaco

December 11, 2025

## Contents

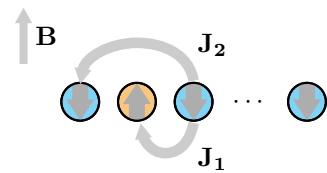
<b>1 Commands</b>	<b>4</b>
annni . . . . .	4
bellcircuit1 . . . . .	4
bellcircuit2 . . . . .	4
bellcircuit3 . . . . .	4
bellcircuitpp1 . . . . .	4
bellcircuitpp2 . . . . .	5
bellcircuitpp3 . . . . .	5
bellspins1 . . . . .	5
bellspins2 . . . . .	5
bellspins3 . . . . .	6
blochRX . . . . .	6
blochRY . . . . .	6
blochRZ . . . . .	6
brick4 . . . . .	6
brickwallpp1 . . . . .	7
brickwallpp2 . . . . .	7
brickwallpp3 . . . . .	7
brickwallpp4 . . . . .	7
brickwallpp5 . . . . .	8
brickwallpp6 . . . . .	8
brickwallpp7 . . . . .	8
clic8 . . . . .	8
convhead . . . . .	9
encclic8 . . . . .	9
fxiqpsimple . . . . .	10
gateCNOT . . . . .	10
gateH . . . . .	10
gaterRX . . . . .	10
gaterRY . . . . .	11
gaterRZ . . . . .	11
iqpsimple . . . . .	11

jamal_block . . . . .	11
jamal_block2 . . . . .	12
linhead . . . . .	12
meas . . . . .	12
measbin . . . . .	12
measbinalt . . . . .	13
mps . . . . .	13
mpstobrick . . . . .	13
pbellcircuit1 . . . . .	13
pbellcircuit2 . . . . .	14
pbellcircuit3 . . . . .	14
pbrickwallpp1 . . . . .	14
pbrickwallpp2 . . . . .	14
pbrickwallpp3 . . . . .	15
pbrickwallpp4 . . . . .	15
pbrickwallpp5 . . . . .	15
pbrickwallpp6 . . . . .	15
pbrickwallpp7 . . . . .	15
psg . . . . .	16
psg_model . . . . .	16
psg_modelE . . . . .	16
psgbp . . . . .	17
qag . . . . .	17
qag_model . . . . .	17
qag_model2 . . . . .	18
qag_small . . . . .	18
qag_train . . . . .	18
qagalt . . . . .	19
qagbp . . . . .	19
qc . . . . .	19
qchyb . . . . .	20
qchyb2 . . . . .	20
qcimg . . . . .	21
qcsimple . . . . .	21
qcultrasimple . . . . .	21
qml . . . . .	22
qml_model . . . . .	22
shower_full . . . . .	22
spin . . . . .	23
spindown . . . . .	23
spindowns . . . . .	24
spinrand . . . . .	24
spinrandalt . . . . .	24
spinrandaltalt . . . . .	24
spinup . . . . .	25
twospinsdown . . . . .	25

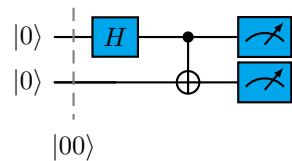
twospinsup . . . . .	25
----------------------	----

# 1 Commands

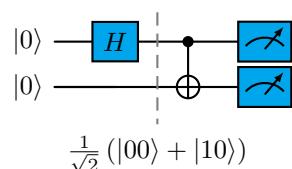
annni



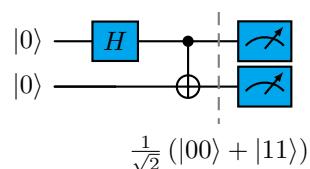
**bellcircuit1**



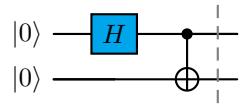
**bellcircuit2**



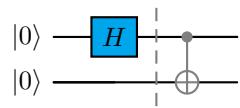
**bellcircuit3**



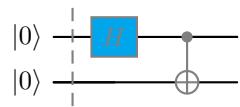
**bellcircuitpp1**



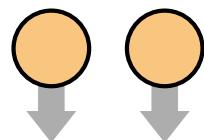
**bellcircuitpp2**



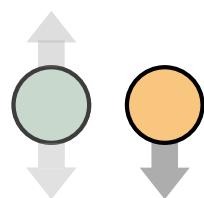
**bellcircuitpp3**



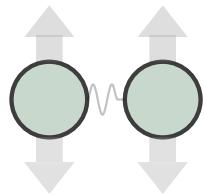
**bellspins1**



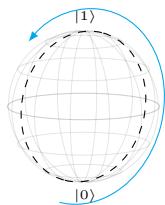
**bellspins2**



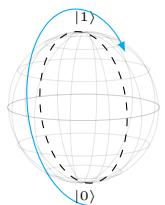
**bellspins3**



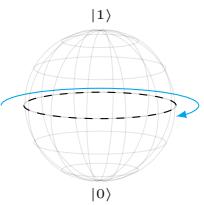
**blochRX**



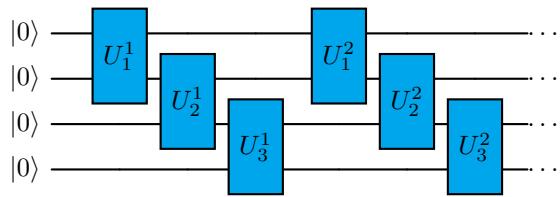
**blochRY**



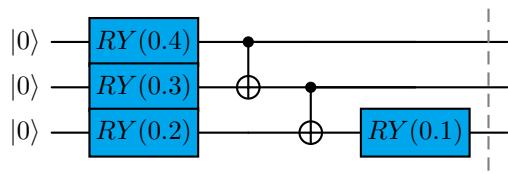
**blochRZ**



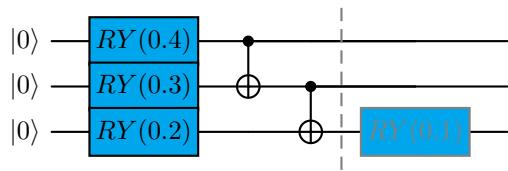
**brick4**



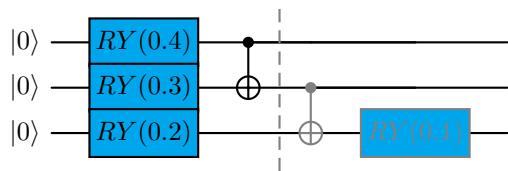
**brickwallpp1**



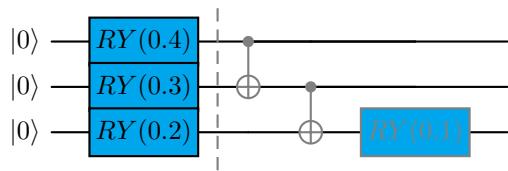
**brickwallpp2**



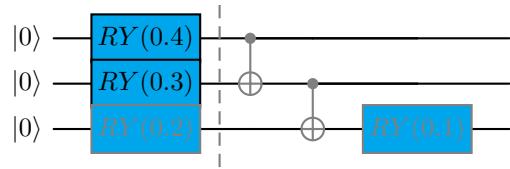
**brickwallpp3**



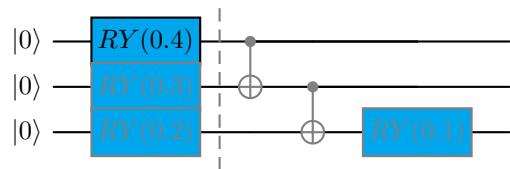
**brickwallpp4**



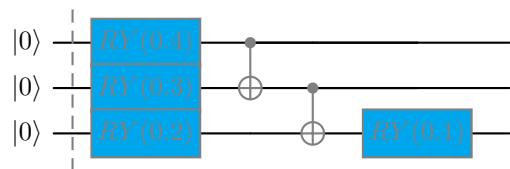
**brickwallpp5**



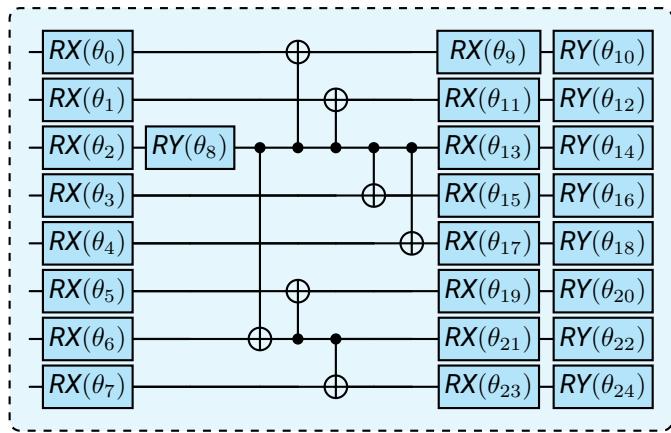
**brickwallpp6**



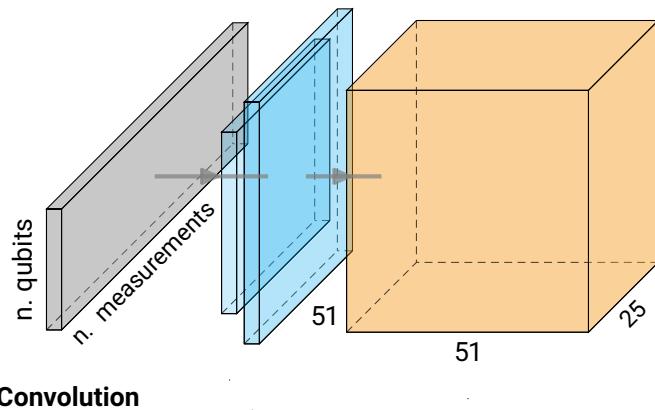
**brickwallpp7**



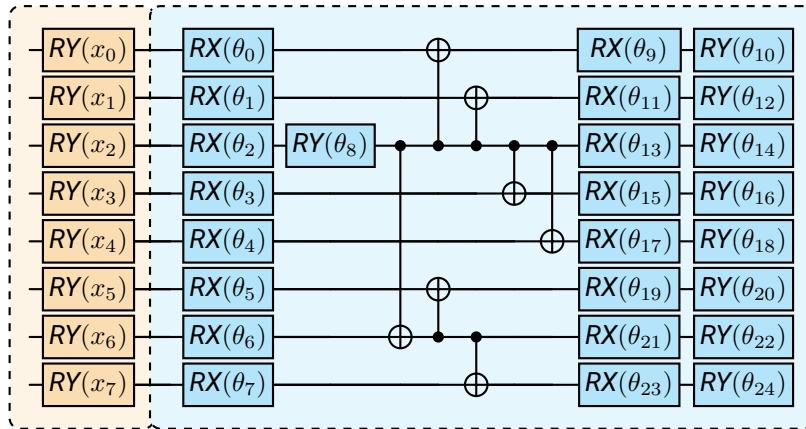
**clic8**



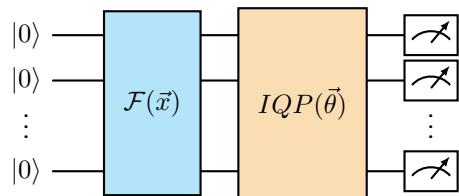
**convhead**



**encclic8**



**fxiqpsimple**



**gateCNOT**

$$\begin{array}{c} \bullet \\ \oplus \end{array} \equiv \begin{pmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{pmatrix}$$

**gateH**

$$\boxed{H} \equiv \frac{1}{\sqrt{2}} \begin{pmatrix} +1 & -1 \\ -1 & +1 \end{pmatrix}$$

**gateRX**

$$\boxed{RX(\theta)} \equiv \begin{pmatrix} \cos\left(\frac{\theta}{2}\right) & -i \sin\left(\frac{\theta}{2}\right) \\ -i \sin\left(\frac{\theta}{2}\right) & \cos\left(\frac{\theta}{2}\right) \end{pmatrix}$$

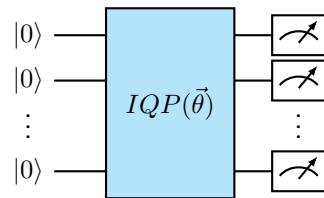
**gateRY**

$$\boxed{RY(\theta)} \equiv \begin{pmatrix} +\cos\left(\frac{\theta}{2}\right) & -\sin\left(\frac{\theta}{2}\right) \\ -\sin\left(\frac{\theta}{2}\right) & +\cos\left(\frac{\theta}{2}\right) \end{pmatrix}$$

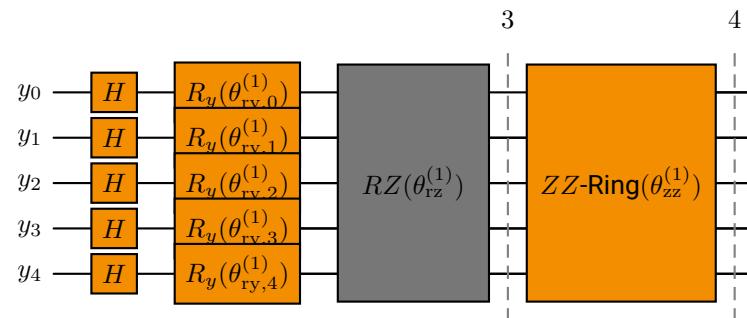
**gateRZ**

$$\boxed{RZ(\theta)} \equiv \begin{pmatrix} e^{-i\theta/2} & 0 \\ 0 & e^{+i\theta/2} \end{pmatrix}$$

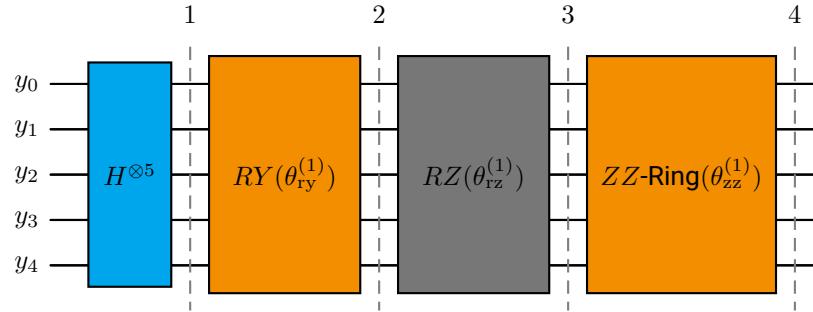
**iqpsimple**



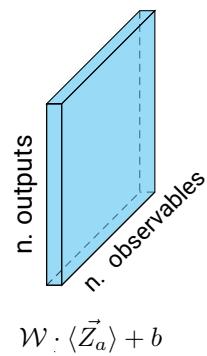
**jamal\_block**



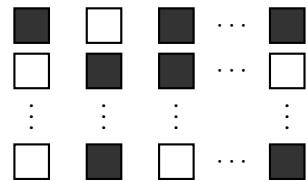
**jamal\_block2**



**linhead**



**meas**



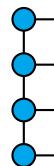
**measbin**

$$\begin{matrix}
 0 & 1 & 0 & \cdots & 0 \\
 1 & 0 & 0 & \cdots & 1 \\
 \vdots & \vdots & \vdots & & \vdots \\
 1 & 0 & 1 & \cdots & 0
 \end{matrix}$$

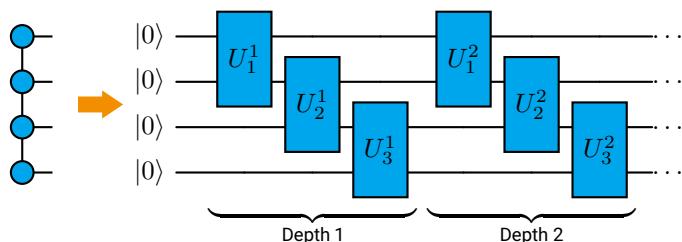
### **measbinalt**

$$\begin{matrix}
 1 & 1 & 1 & \cdots & 0 \\
 1 & 1 & 0 & \cdots & 1 \\
 \vdots & \vdots & \vdots & & \vdots \\
 0 & 0 & 1 & \cdots & 1
 \end{matrix}$$

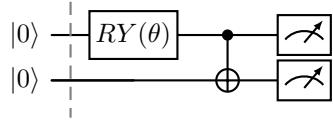
### **mps**



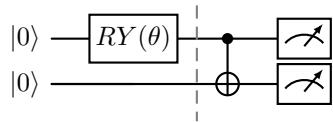
### **mpstobrick**



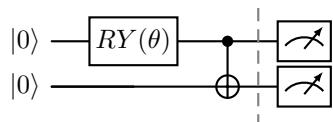
### **pbellcircuit1**



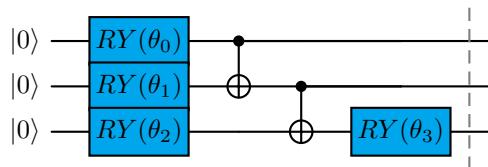
**pbellcircuit2**



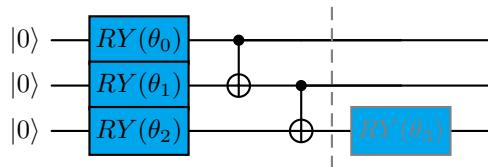
**pbellcircuit3**



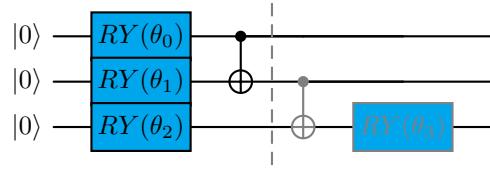
**pbrickwallpp1**



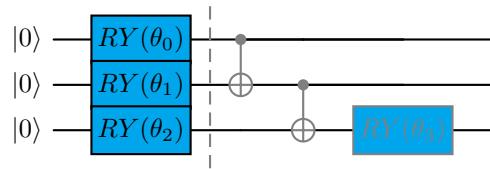
**pbrickwallpp2**



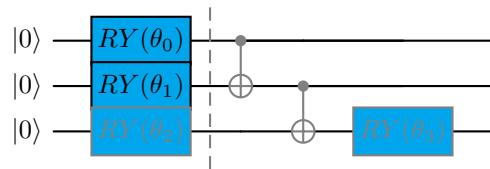
### **pbrickwallpp3**



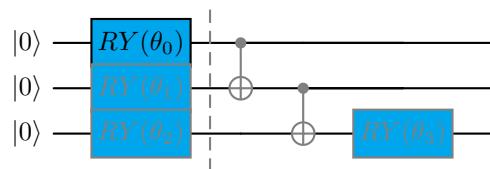
### **pbrickwallpp4**



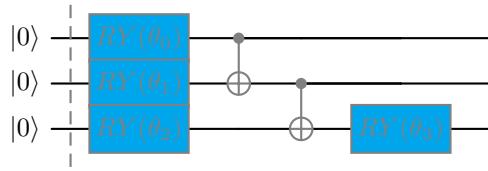
### **pbrickwallpp5**



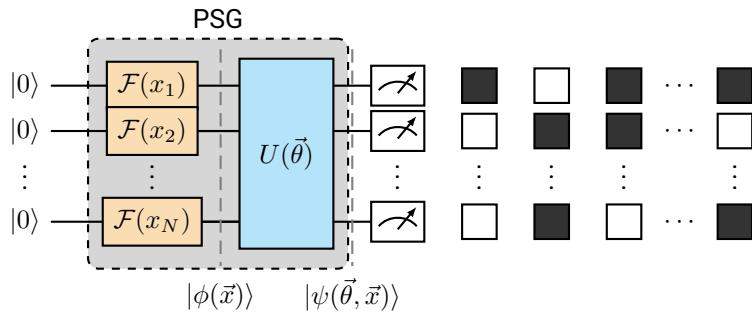
### **pbrickwallpp6**



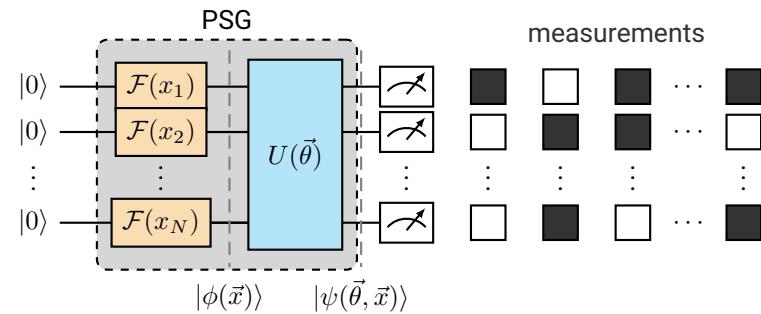
### **pbrickwallpp7**



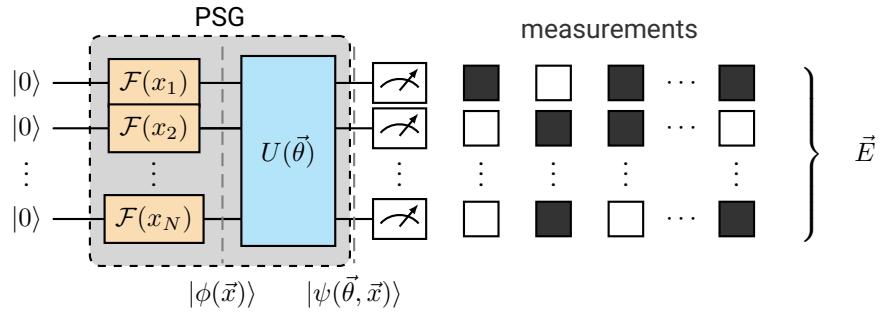
**psg**



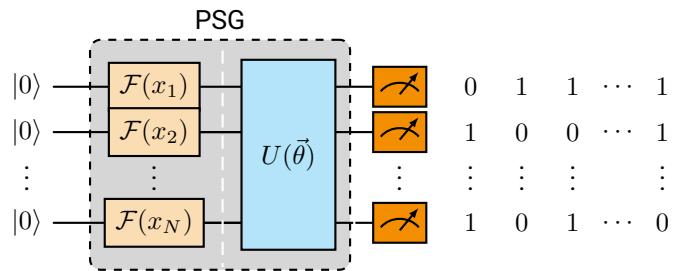
**psg\_model**



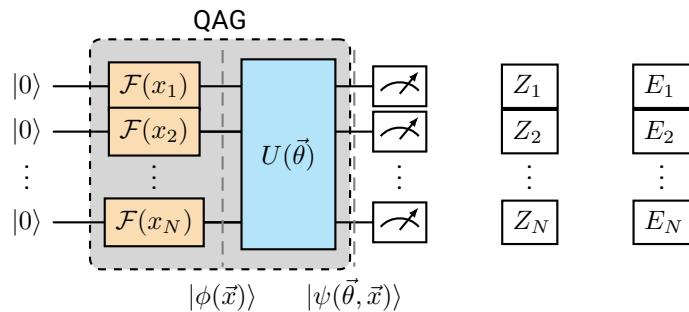
**psg\_modelE**



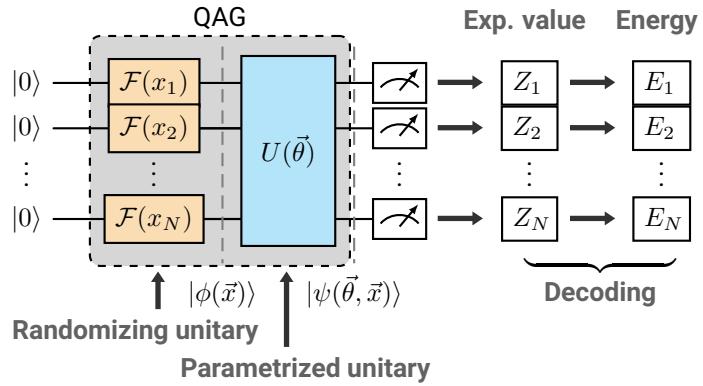
**psgbp**



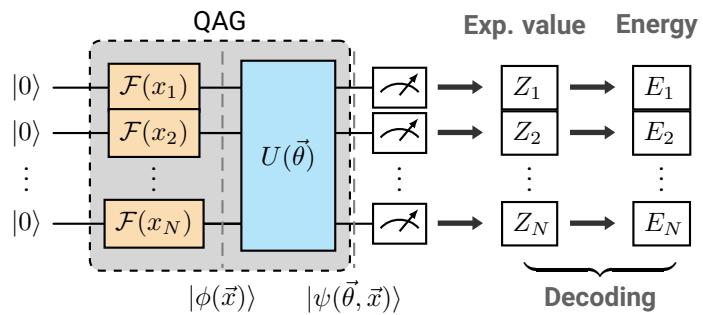
**qag**



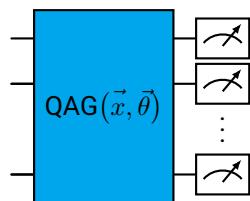
**qag\_model**



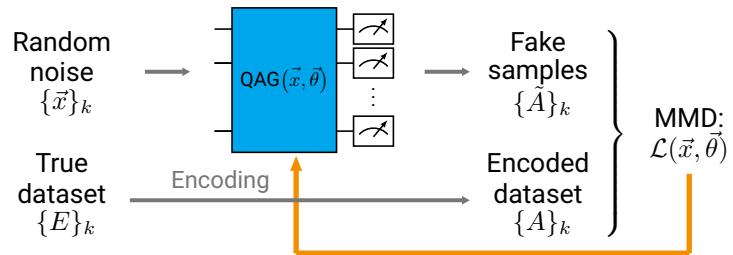
**qag\_model2**



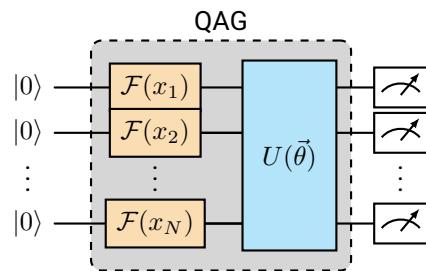
**qag\_small**



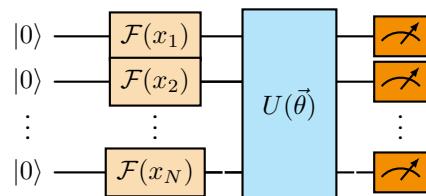
**qag\_train**



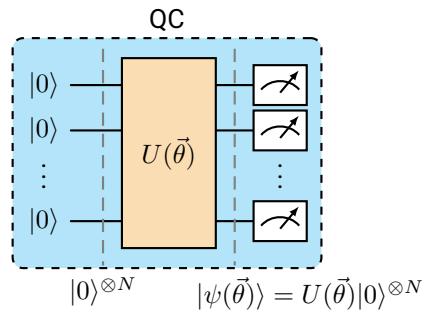
**qagalt**



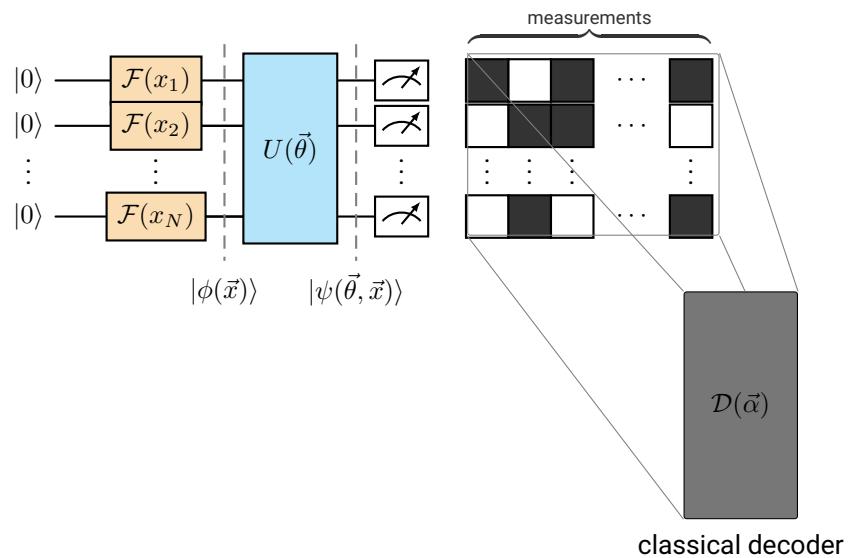
**qagbp**



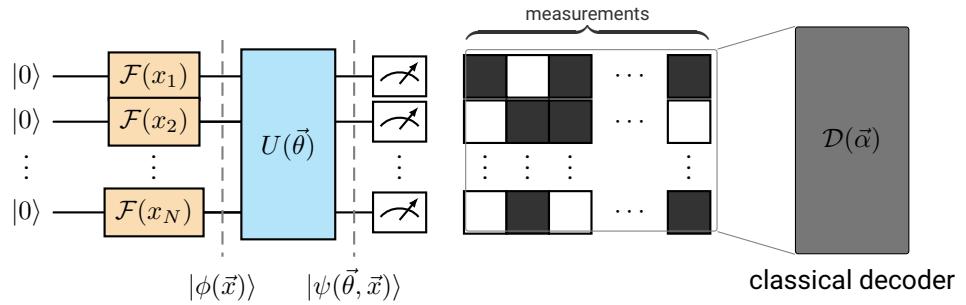
**qc**



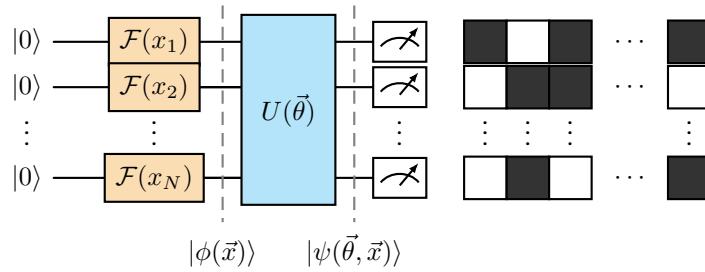
**qchyb**



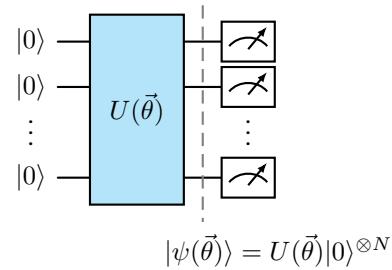
**qchyb2**



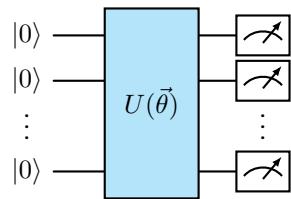
**qcimg**



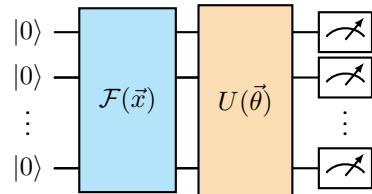
**qcsimple**



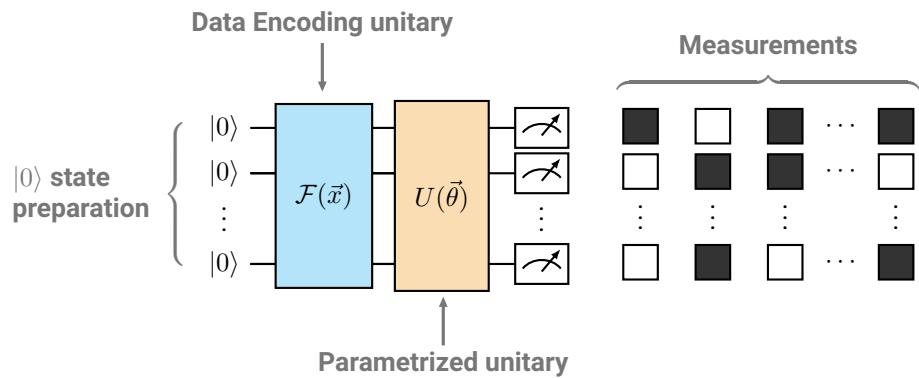
**qcultrasimple**



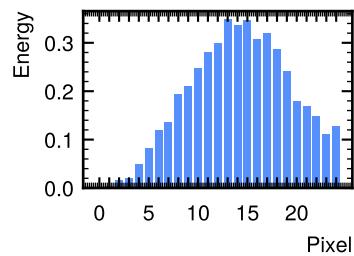
**qml**



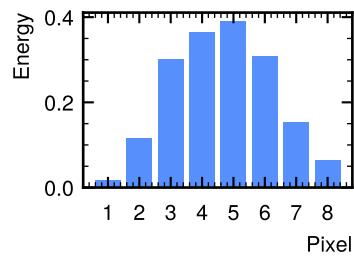
**qml\_model**



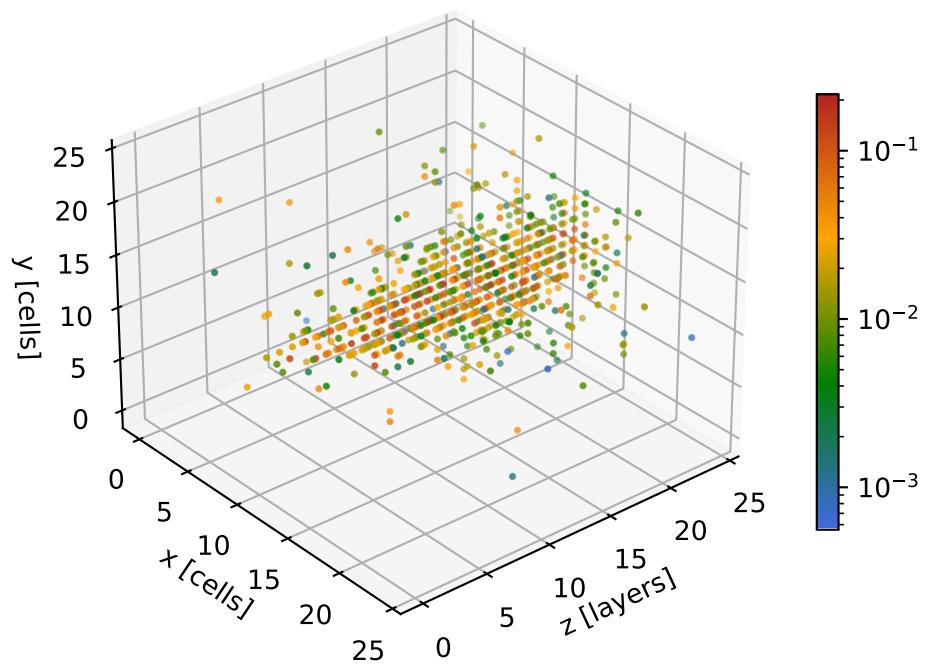
**shower\_25**



**shower\_8**



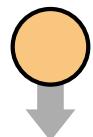
**shower\_full**



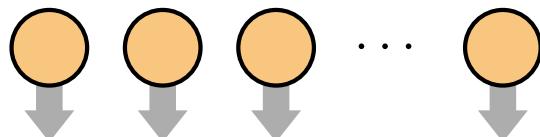
**spin**



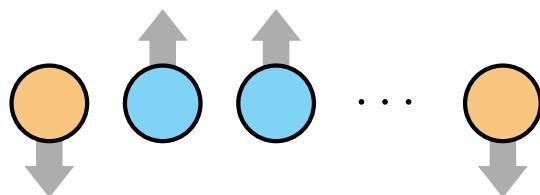
**spindown**



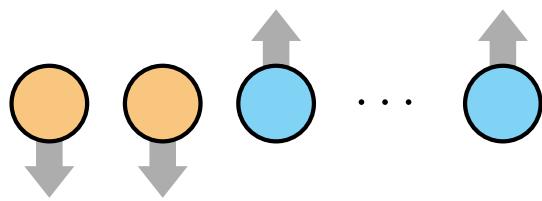
**spindowns**



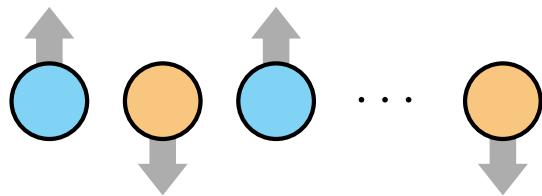
**spinrand**



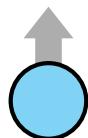
**spinrandalt**



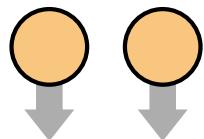
**spinrandaltalt**



**spinup**



**twospinsdown**



**twospinsup**

