

# Protecting quantum entanglement from leakage and qubit errors via repetitive parity measurements

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Ni Group

Aug. 24, 2020

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- Detection of leakage error
- Detection fidelity
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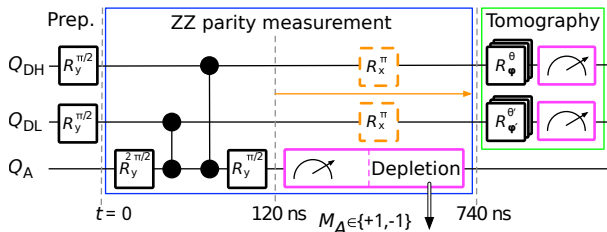
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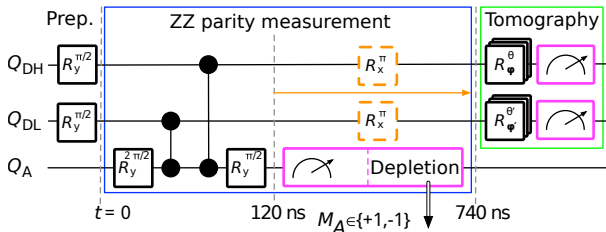
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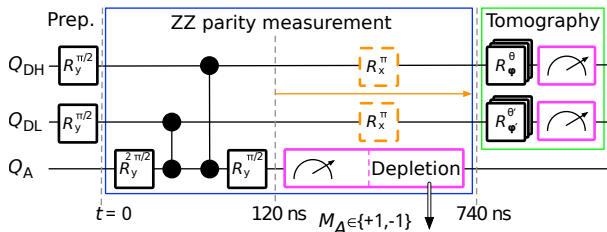
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- Error correction via post-processing  
Requires symmetry between states
- $Z \otimes Z$  (and  $X \otimes X$ )
- $F_{|\Psi^+\rangle|_{M_A=\pm 1}}$ , i.e.  $P(Z \otimes Z = \pm 1)$ .
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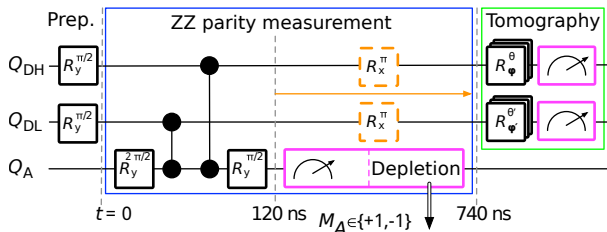
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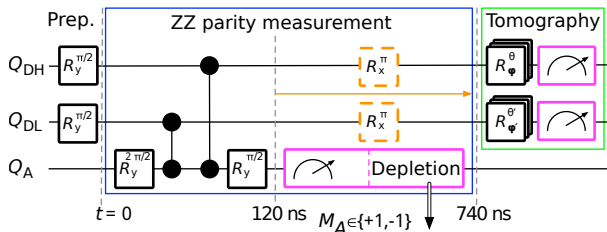


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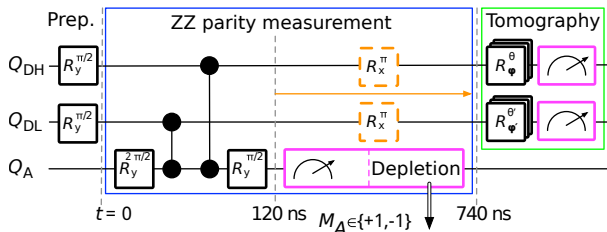
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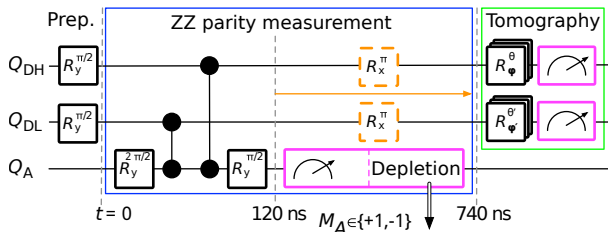
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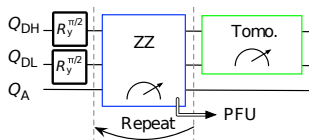
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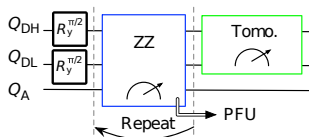
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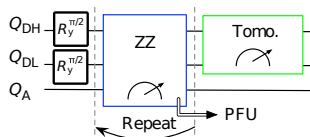
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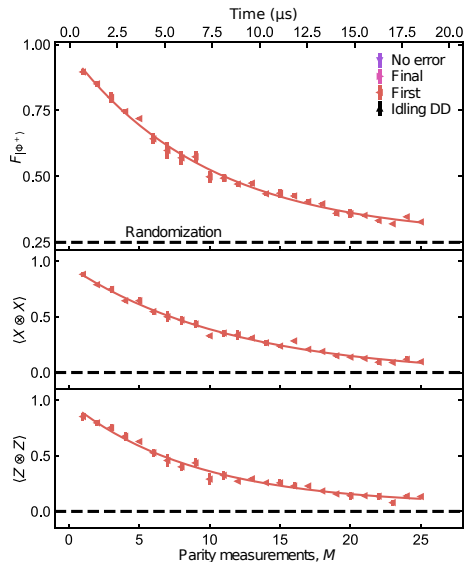
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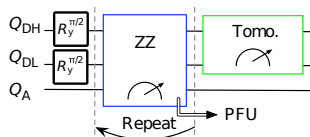


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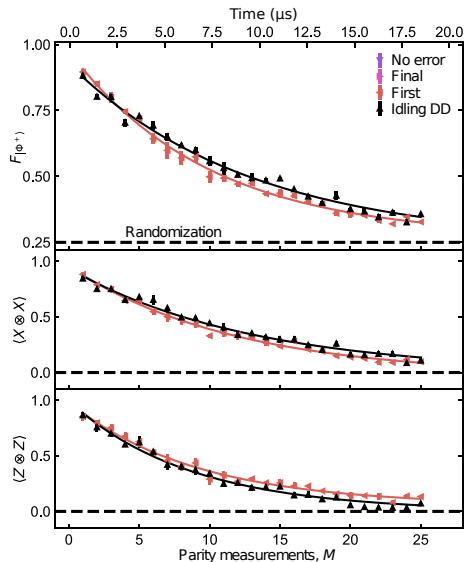


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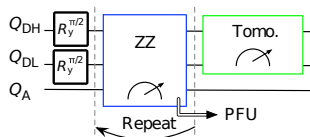
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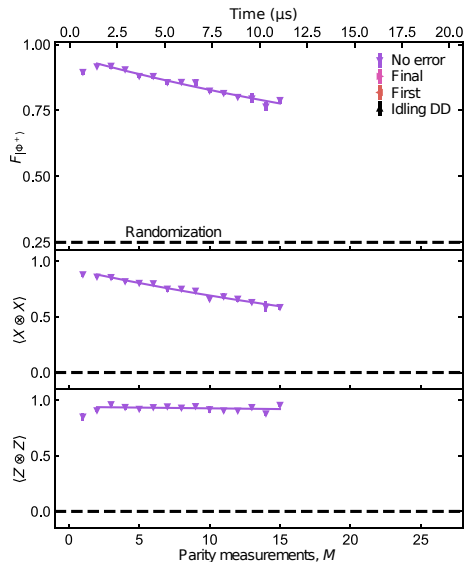


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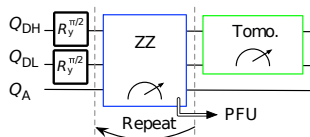


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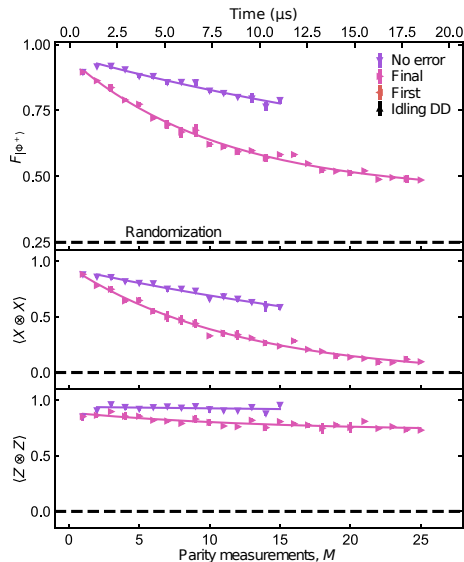


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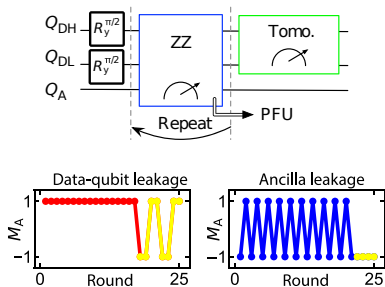


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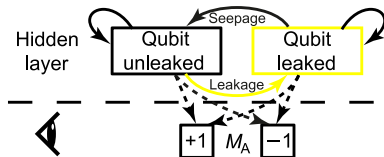
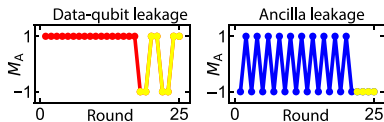
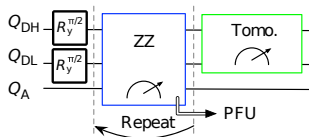
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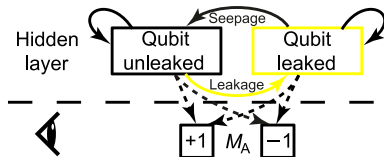
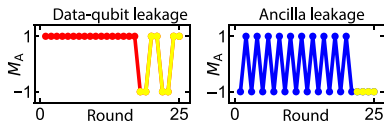
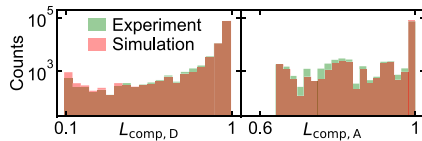
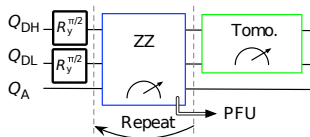
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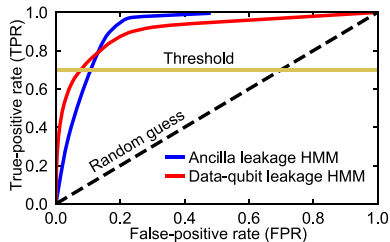
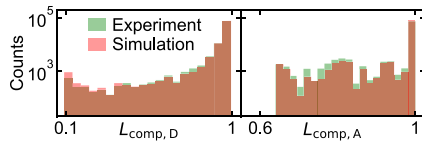
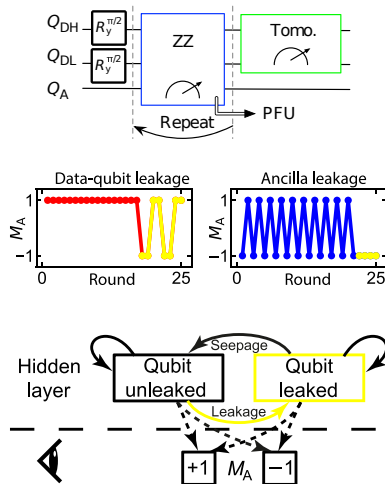
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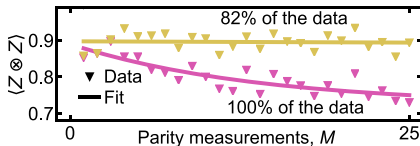
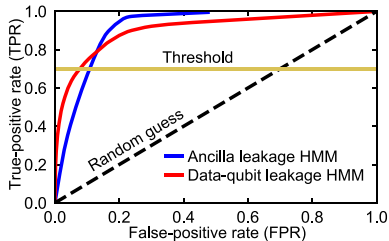
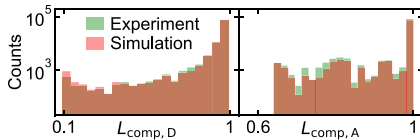
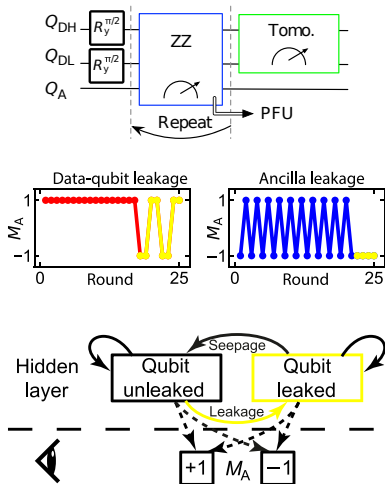
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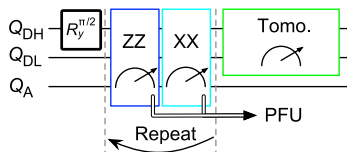
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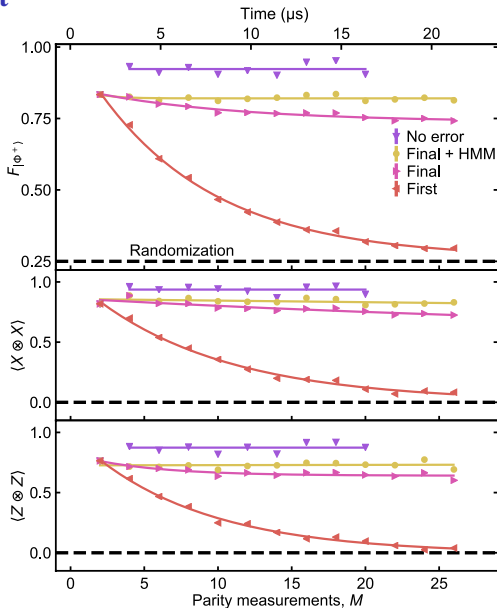
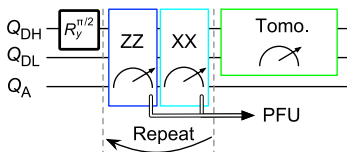


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