Implementing the Klein Gordon Equation on a Quantum Computer

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All components of this project including code, Jupyter Notebooks, LaTeX files and images can be found in my Github repository, please check this out for reference.

1 The Klein Gordon Equation

motivation

2 Background

2.1 Quantum Computing

2.2 Gates

blog

3 The Circuits

The barriers that are seem in the image of the circuit serve the purpose of

3.1 Quantum Fourier Transform and its Inverse

4 Results

4.1 Kapil, M. et al. (2018) Results

4.2 My Results

5 References

[1] Wolfram Alpha (2019). *Wolfram Alpha Search*. Retrieved from

`http`