

# Topic in quantum computation and information

Names of team members  
University of British Columbia

## Abstract

This is a short description of the paper.

## 1 Introduction

To use this template, create a *new* Latex project in Overleaf and copy both main.tex and references.bib into that project.

Here is a reference [Sho97].

## 2 Another sample section

Here is a sample equation:

$$X = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}. \quad (1)$$

We can now refer to this as Eq. (1).

Aligned equations can be produced as follows:

$$|\text{EPR}\rangle = \frac{1}{\sqrt{2}}(|00\rangle + |11\rangle), \quad (2)$$

$$|\text{GHZ}\rangle = \frac{1}{\sqrt{2}}(|000\rangle + |111\rangle). \quad (3)$$

We can use customized commands to produce, e.g.,  $|\psi\rangle\langle\phi|$  and  $|\chi\rangle\langle\chi|$ . Note that “ketbra” and “ketbrasame” are defined via “newcommand” in the Latex code.

## Acknowledgments

If you have discussions with your classmates about your chosen topic, you can thank them here.

## References

- [Sho97] Peter W. Shor. Polynomial-time algorithms for prime factorization and discrete logarithms on a quantum computer. *SIAM Journal on Computing*, 26(5):1484–1509, 1997. doi: 10.1137/S0097539795293172. [p. 1]