

Physics Undergraduate Research (PHYS497)

Alfaifi, Ammar – 201855360

1 Introduction

This paper shows the idea of realization of braiding of Majorana fermions but as series of measurement instead. And then using Jordan-Wigner transformation to write Majorana operators in terms of spin (fermionic) system. Hence, we can use methods provided by `qiskit` package to simulate such an idea and system.

2 As Series of Measurement

As a demonstration for the idea, we'll start with a system of 4 Majorana fermions, corresponding to two fermions.