UNIVERSITY OF LIVERPOOL

QUANTUM COMPUTER FOR NEUTRINO SCATTERING

SUBTITLE HERE

First Year Report

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May 2024

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ANII AGENCIA NACIONAL DE INVESTIGACIÓN E INNOVACIÓN

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Abstract

Keywords:

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1 Quantum Computing

1.1| Fundamentals

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Different hardware approaches (brief): [6] [7] [8]
Bosonic systems: [7] [9]

1.2| Quantum Error Correction

General [9] [10] [11] [12] [13]
Specific Implementations [14] [15] [16]
Bosonic [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27]

2 Neutrino Physics

Overview of neutrino physics:
- Current main research challenges
- Role and goals of current and planned experiments
- How neutrino-nucleus fit into this

Neutrino physics and computation
- Role of MC generators in the research
- Overview of how they work/what they do, emphasise on GENIE
- Quick overview of some of the inputs (tunes, models etc)
- Showing some comparison results
- Mentioning some challenges?

Figure out best way to tie with QC

3 Project Outlook

4 Summary

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Appendices