

aQa course 2021 - Miniproject

Giorgio Tosti Balducci

June 2021

Contents

| | |
|--|----------|
| 1. Theory | 1 |
| 1.1. Strongly Correlated Systems | 1 |
| 1.1.1. Exercise 1 | 1 |
| 2. Project | 3 |
| Bibliography | 5 |
| A. First appendix | 7 |

1. Theory

1.1. Strongly Correlated Systems

1.1.1. Exercise 1

Let a_i^\dagger be the creation operator on orbital i and a_i the annihilation operator. The canonical anticommutation relations are

$$\{a_i, a_j\} = \{a_i^\dagger, a_j^\dagger\} = 0 \quad (1.1)$$

$$\{a_i, a_j^\dagger\} = \delta_{i,j} \mathbb{1} \quad (1.2)$$

2. Project

More text ... Here I cite [1]

Bibliography

- [1] A. Einstein. “Die Ursache der Mäanderbildung der Flußläufe und des sogenannten Baerschen Gesetzes”. In: *Die Naturwissenschaften* 14.11 (Mar. 1926), pp. 223–224. DOI: 10.1007/bf01510300.

A. First appendix

Lots of cool stuff about being structured.

Todo list