

# Time and Space Efficient Algorithms for Hamiltonian Cycles

Jonathan N, Euan M.

November 8, 2022

# Contents

<b>1</b>	<b>Abstract</b>	<b>2</b>
<b>2</b>	<b>The Hamiltonian Cycle Problem</b>	<b>2</b>
2.1	Description . . . . .	2

## 1 Abstract

Let us write a nice intro here.

## 2 The Hamiltonian Cycle Problem

### 2.1 Description

The hamiltonian cycle is similar to that of the hamiltonian path where inside an undirected or directed graph, the hamiltonian path, also known as the traceable path, is a path that visits each vertex exactly once. However, differing to the hamiltonian path, the starting point and ending point of the path must also be adjacent to each other such that they are able to create a cycle using an available edge.

The hamiltonian cycle problem can be expressed in many ways depending on whether you represent it as a decision problem (does a graph contain a hamiltonian cycle, yes or no?) or whether the algorithm should return the actual path.