

# Conway's Game of Life

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## Introduction

## Algorithm

### Input

- Square binary grid OR grid size (for random grid)
- Number of evolution timesteps
- Save interval
- Number of MPI ranks
- Number of OpenMP threads
- IF POSSIBLE: number of neighbours determining the rules?

### Output

- Grid at fixed intervals determined by Input
- Some kind of report

## Implementation

### Structure

The grid at all times consists of binary integers.

To decide on: data structure to save the grid, domain decomposition

Hard parts: counting live neighbours

### Profiling

### Optimisation

Separable 2D convolution

## Conclusion