

# SCALE FREE NETWORKS

**PYTHON**

**PLOTLY**

**NETWORKX**

# INFECTION

## INTRODUCTION:

The aim of this project is to review and discuss how the spreading phenomena of infections are transmitted over scale free networks in comparison to other random networks.

## Methods:

The Scale free network data was generated based on the Barabasi-Albert model in python, the data was then used to have a pandemic infection simulation run on the data. The simulation was then also run on the data created from the random network and the results were compared and analysed.

## RESULTS:

For the scale free network the rate of infection when making contact with a main hub node with higher connectivity the rate of infected spread more rapidly through the connecting nodes, the more connected the node the higher the rate.

The results showed the random network had a slower infection rate, that only passed quickly as higher connected nodes were infected