Project dataset idea

# Set Value

- Nodes: 500

- Layers: 3

- Intra\_thres:

- Inter\_thres:

- Attack\_type: Spatial\_number

- Attack\_size:

- Edge\_type: Directed / Undirected

# Columns:

- Intra\_edges (start, end)

- Inter\_edges (start, end)

- Supporting edge (start, end)

- Number of alive nodes

- Number of dead nodes by not supported (total)

- Number of dead nodes by isolated (total)

- Number of the cascade steps

- The distance between the most far node from the centre of attack

- Clustering Coefficient (start, end)

- Mean degree (start, end)

- Size of the largest component

- Degree assortativity

- Distance between the degree centre and the centre of attack

- Number of dead nodes by not supported (each step)

- Number of dead nodes by isolated (each step)

# Logic

- Find best number of set values.

- Compare the difference of the number of edges (inter, intra) for each 4 types.

- Check the number of alive supporting edges 🡪 ?

- Check the number of alive nodes 🡪 which network type is strong?

- Number of dead node by unsupported/isolation 🡪 which one is important? graph

- Number of cascade steps 🡪 How much is the graph strong/well-organised? RGG vs Ran

- Distance between the far node 🡪 RGG vs Random

- Size of the largest component 🡪 Strong point

- Degree Assortativity 🡪 ?

- t-test: Inter: RGG vs Random / Intra: RGG vs Random (alive nodes, edges, steps)

- ANOVA test: Inter: RGG vs Random / Intra: RGG vs Random (alive nodes, edges, steps)

- RGG = 1, Random = 0 🡪 Correlation Analysis with alive node? (3D graph)

# Find the best set values