# Article information:

Effects of random rewiring on the degree correlation of scale-free networks | Scientific Reports
<https://www.nature.com/articles/srep15450>

# Article summary:

1. Network theory has been used to describe complex systems such as social, technological, and biological networks.

2. Degree correlation is an important statistical property of scale-free networks that measures the extent to which the degree of neighboring nodes depends on the degree of a chosen node.

3. This article investigates the effects of random rewiring on the degree correlation of scale-free networks, finding that random rewiring shifts the degree correlation towards disassortativity when considering all links in the network, but does not affect it when considering only links between nodes with the same degree.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Effects of Random Rewiring on the Degree Correlation of Scale-Free Networks” is a scientific report published in Scientific Reports that examines how random rewiring affects the degree correlation of scale-free networks. The article is well written and provides a comprehensive overview of network theory and its application to various complex systems, as well as an introduction to different measures for quantifying degree correlation. The authors then present their results from systematically investigating how random rewiring affects these measures, providing evidence for their claims with figures and data analysis.

The article appears to be reliable and trustworthy overall; however, there are some potential biases worth noting. For example, while the authors do provide evidence for their claims about how random rewiring affects degree correlation in scale-free networks, they do not explore any counterarguments or consider any possible risks associated with this process. Additionally, while they do mention that directional rewiring can influence network dynamics even if it does not change degree correlation values, they do not provide any further details or evidence for this claim.

In conclusion, this article provides a thorough overview of network theory and its application to various complex systems as well as an examination into how random rewiring affects degree correlation in scale-free networks. While it appears to be reliable overall, there are some potential biases worth noting such as lack of exploration into counterarguments or risks associated with this process and lack of further details or evidence regarding directional rewiring's influence on network dynamics even if it does not change degree correlation values.

# Topics for further research:

* Directional rewiring network dynamics
* Degree correlation scale-free networks
* Risks associated with random rewiring
* Counterarguments to random rewiring
* Network theory complex systems
* Quantifying degree correlation measures

# Report location:

<https://www.fullpicture.app/item/8a5775c9a6766410175f407a4d3a698e>