# Article information:

Tri-Clustering Dynamic Functional Network Connectivity Identifies Significant Schizophrenia Effects Across Multiple States in Distinct Subgroups of Individuals - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8867091/>

# Article summary:

1. The article discusses a new method for analyzing dynamic functional network connectivity (dFNC) called dynamic-N-way tri-clustering (dNTiC).

2. dNTiC incorporates a homogeneity benchmark to approximate clusters that provide a more “apples-to-apples” comparison between groups within analogous subsets of time-space and subjects.

3. Results show significant differences between schizophrenia (SZ) and healthy control (HC) in distinct brain regions, with SZ showing hypoconnectivity among subcortical, default mode, cognitive control networks, but hyperconnectivity between sensory networks in most tri-clusters.

# 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 is generally reliable and trustworthy as it provides evidence for its claims through the use of scientific methods such as resting-state fMRI and dynamic functional network connectivity (dFNC). The authors also provide detailed explanations of their methodology and results, which are supported by relevant literature. Furthermore, the article does not appear to be one-sided or biased in any way; rather, it presents both sides equally by providing evidence for both SZ and HC subjects. Additionally, the article does not contain any promotional content or partiality towards either side.

However, there are some points of consideration that are missing from the article. For example, while the authors discuss the potential risks associated with using resting-state fMRI and dFNC to analyze neural activity, they do not explore any counterarguments or alternative approaches that could be used instead. Additionally, while the authors present evidence for their claims regarding differences between SZ and HC subjects in distinct brain regions, they do not provide any evidence for their claims regarding reoccurrence time for two distinct dFNC states. Finally, while the authors discuss their proposed method of dynamic-N-way tri-clustering (dNTiC), they do not provide any evidence to support its efficacy compared to other methods such as k-means clustering.

# Topics for further research:

* Alternative approaches to resting-state fMRI
* Counterarguments to using dFNC to analyze neural activity
* Evidence for reoccurrence time of two distinct dFNC states
* Comparison of dNTiC to k-means clustering
* Advantages and disadvantages of using dNTiC
* Applications of dynamic-N-way tri-clustering

# Report location:

<https://www.fullpicture.app/item/b8e62e48041916da556f2b75038a74eb>