

Minimum Required Data Length to Reconstruct GC Network

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1 Task

2 Analysis

Recall:

Distribution of GC obey

$$L \cdot \hat{F}_{x \rightarrow y} \stackrel{a}{\sim} \chi'^2(m, L \cdot F_{x \rightarrow y})$$

in the large L limit ($\stackrel{a}{\sim}$). Where L is data length, $\hat{F}_{x \rightarrow y}$ is calculation value of true GC $F_{x \rightarrow y}$, m is fitting order. χ'^2 is Noncentral chi-squared distribution (see ref. [1] for definition and properties).

References

[1] http://en.wikipedia.org/wiki/Non-central_chi-square_distribution