

# Parallel factorization to implement group analysis in brain networks estimation

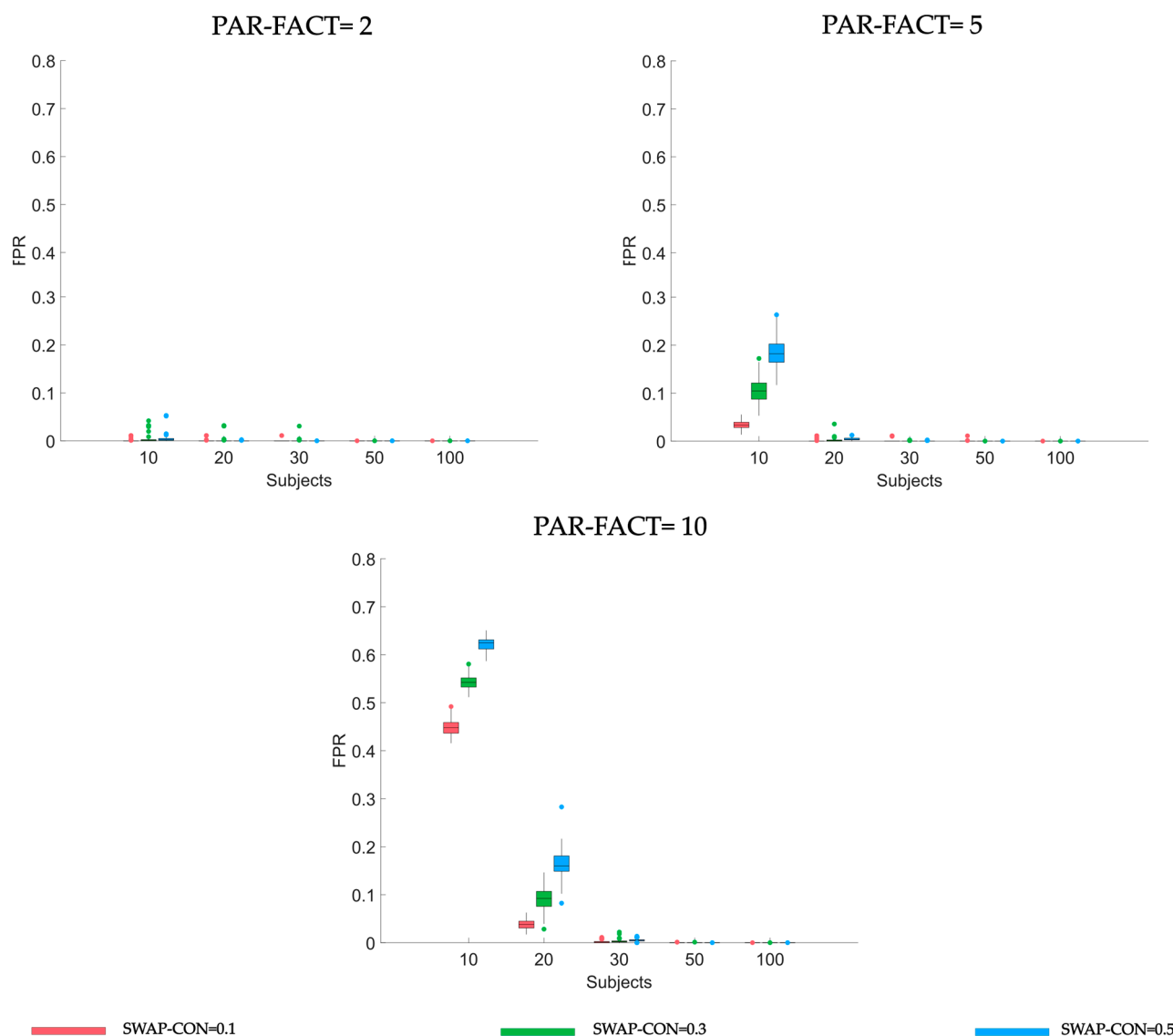
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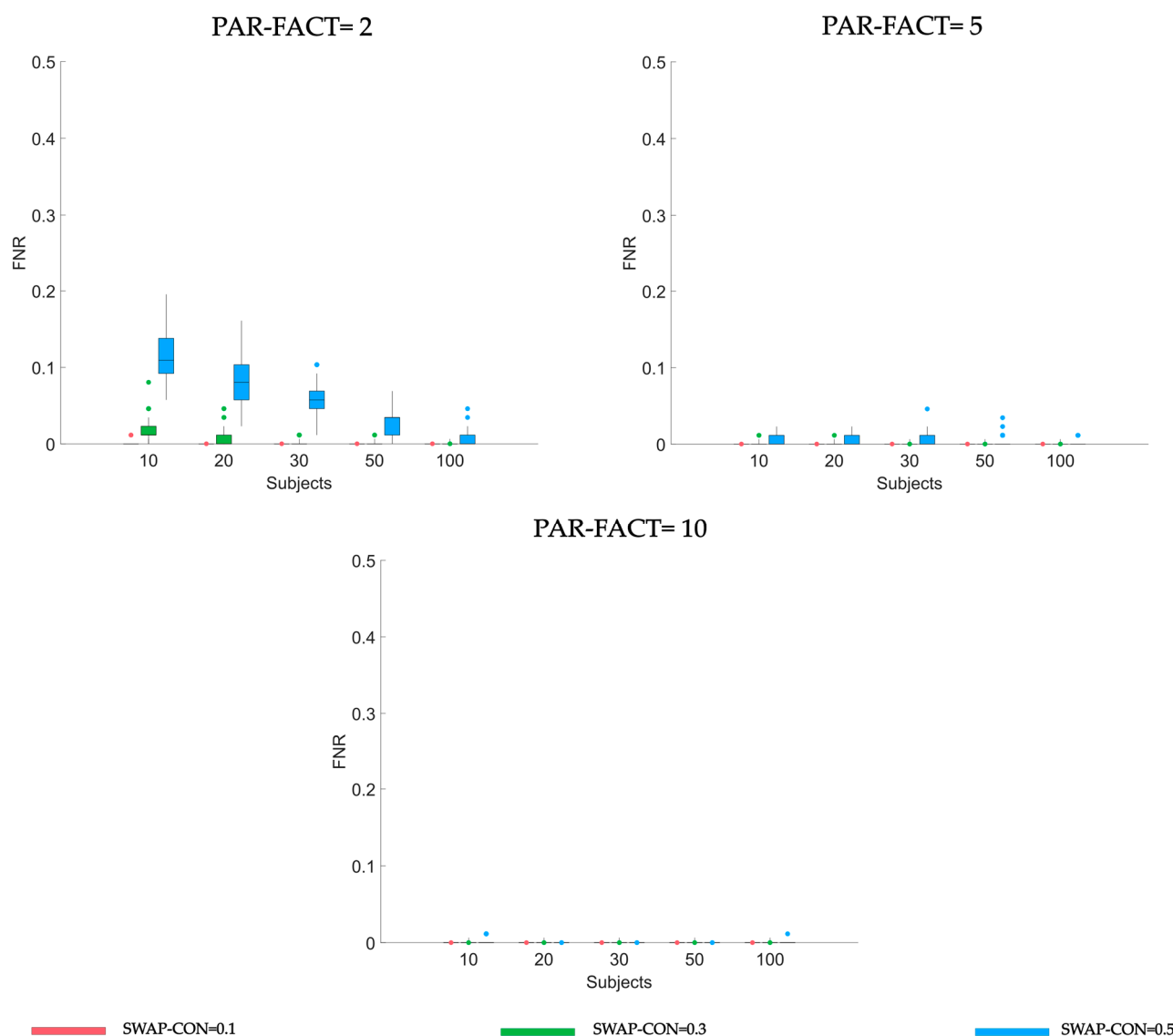
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## Supplementary Materials



**Figure S1.** Boxplot diagrams reporting FPR distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 30 nodes.



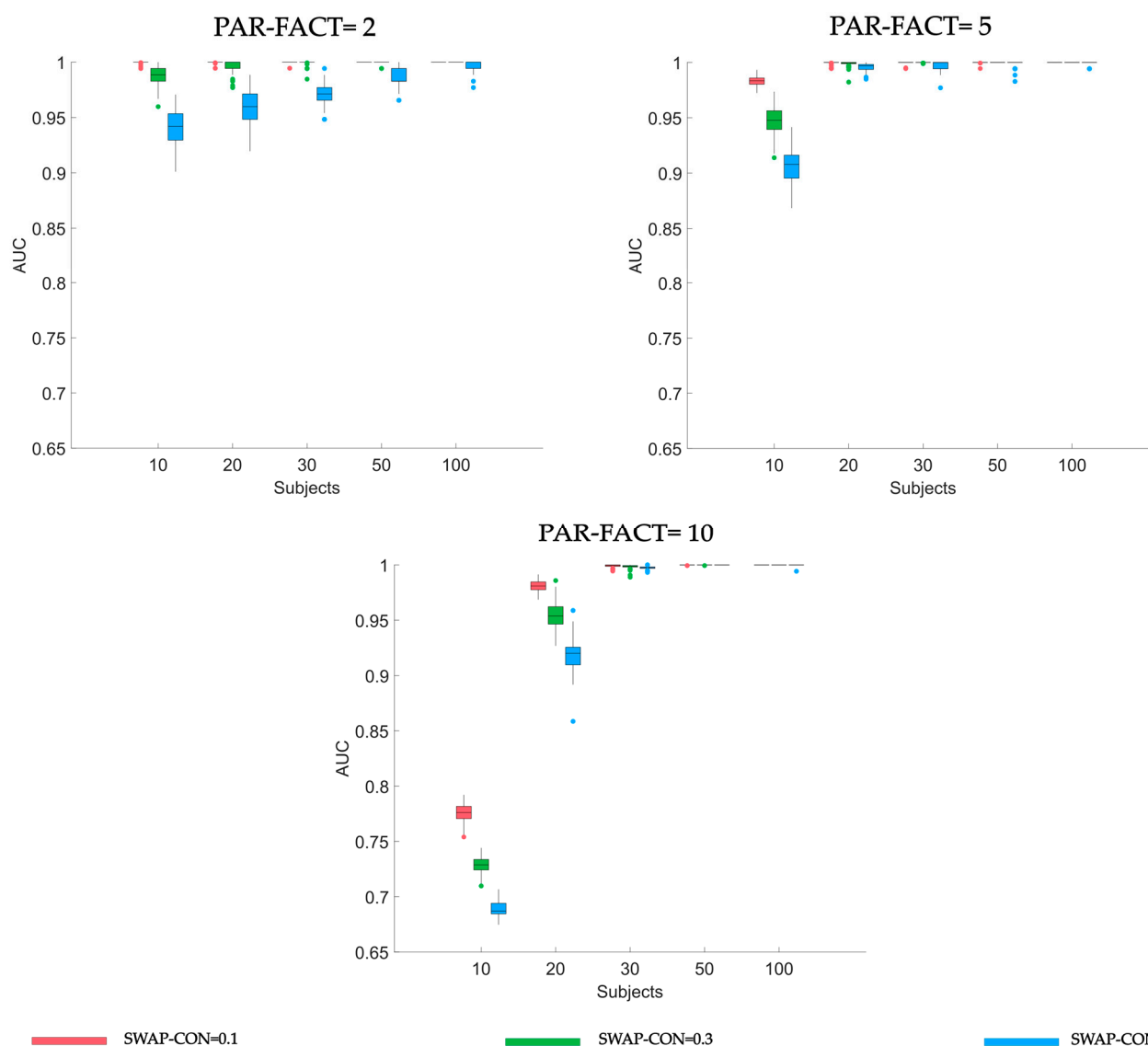
**Figure S2.** Boxplot diagrams reporting FNR distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 30 nodes.

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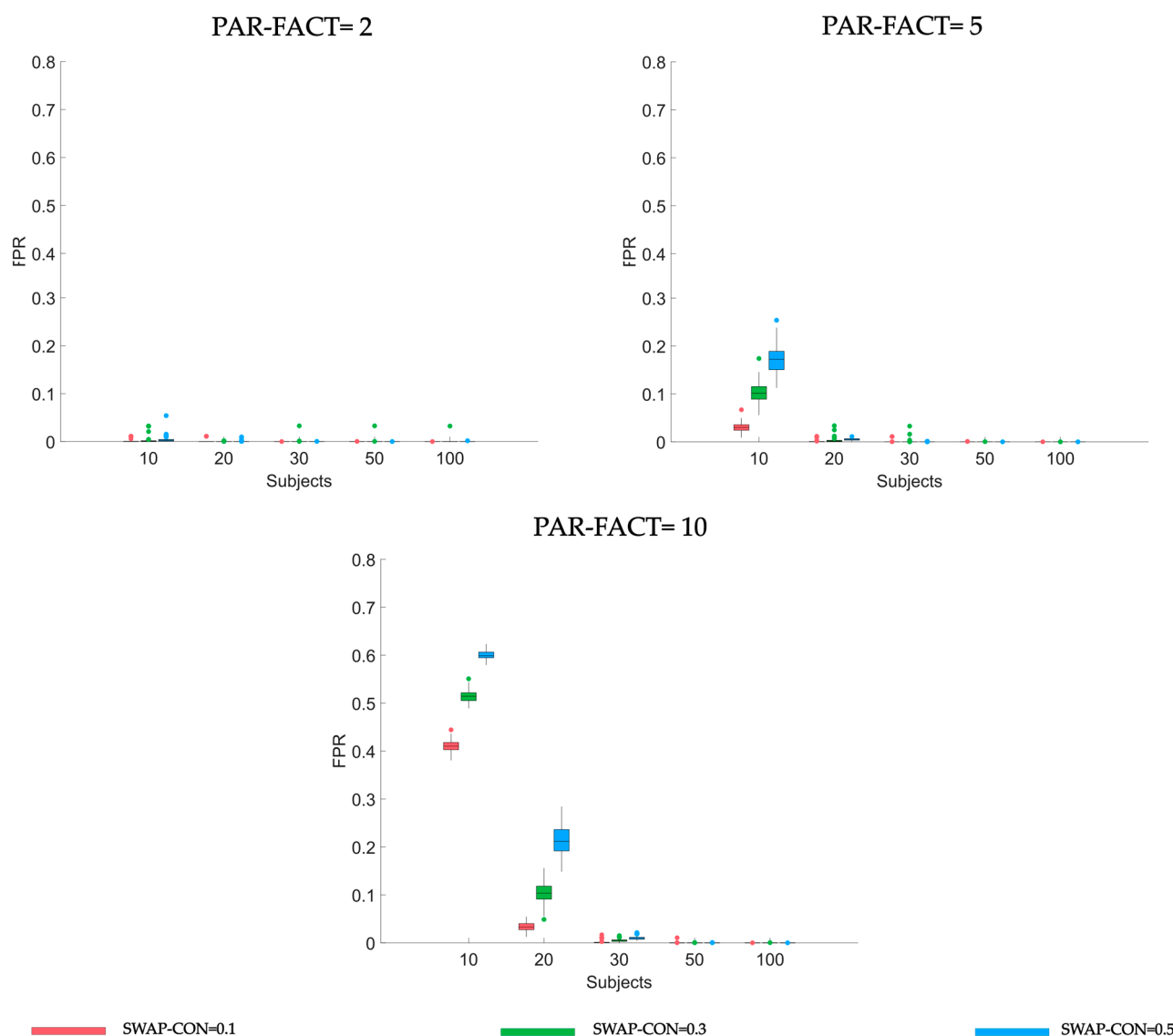
**Figure S3.** Boxplot diagrams reporting AUC distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 30 nodes.

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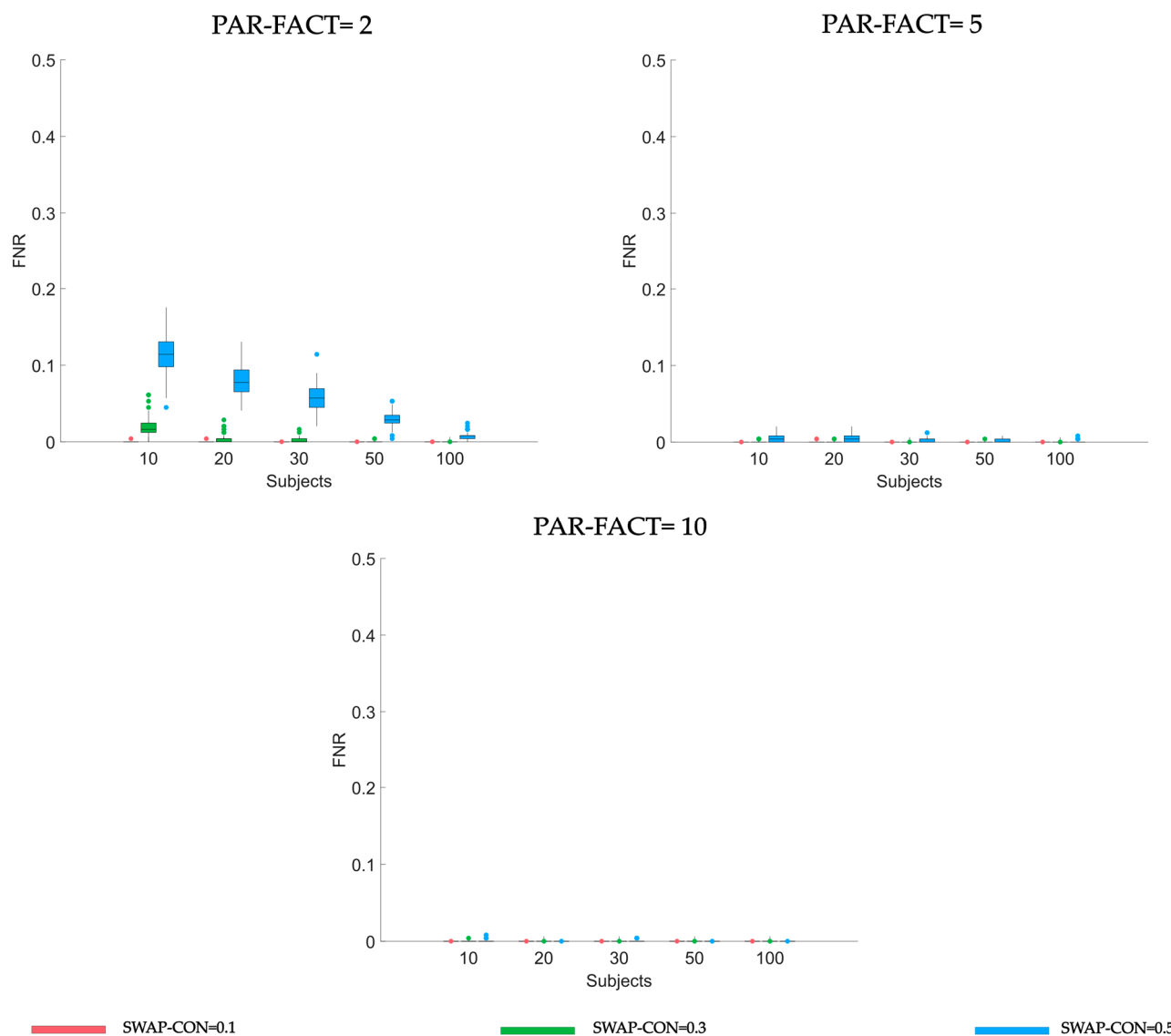
**Figure S4.** Boxplot diagrams reporting FPR distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 50 nodes.

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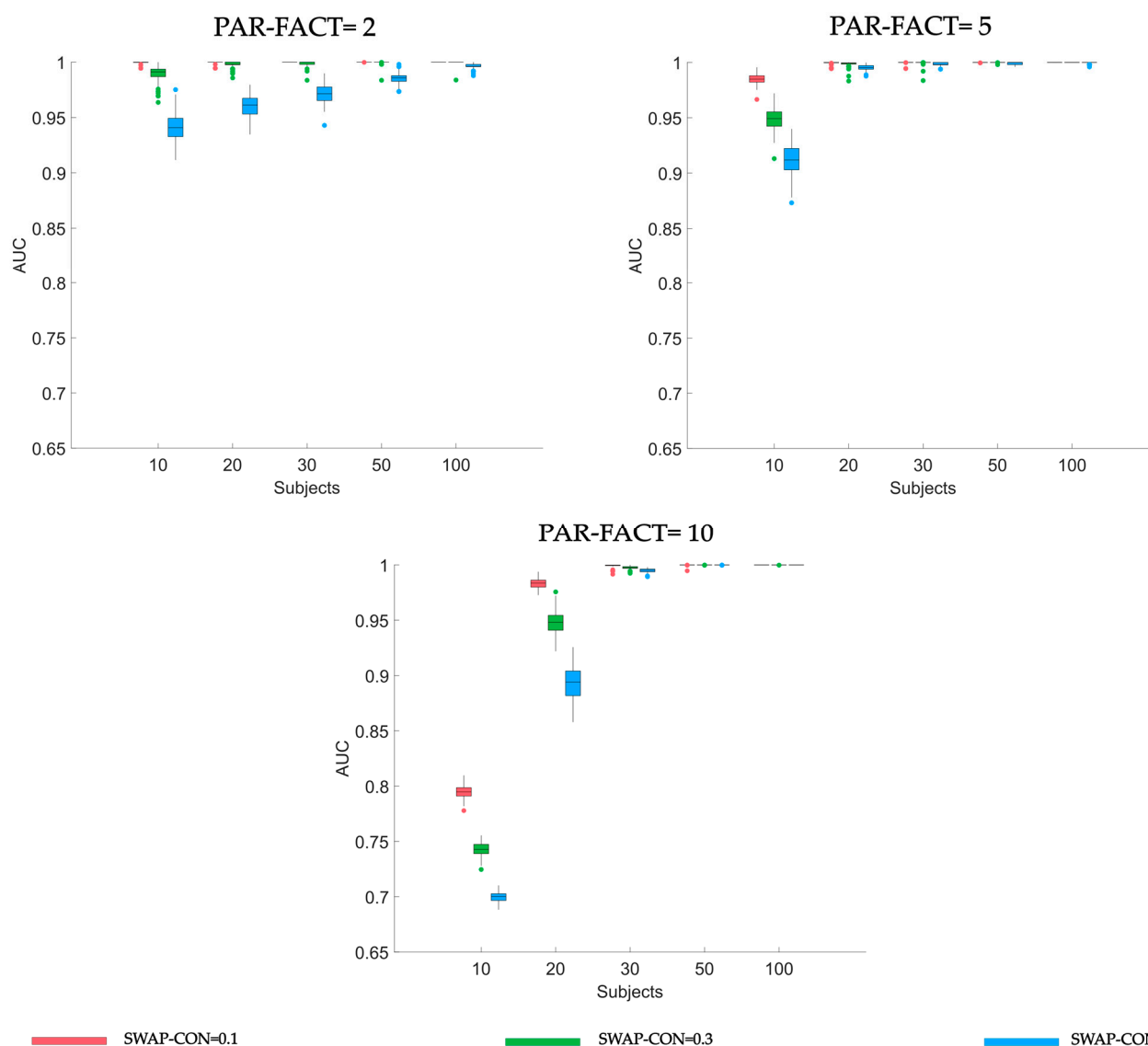
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**Figure S5.** Boxplot diagrams reporting FNR distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 50 nodes.



**Figure S6.** Boxplot diagrams reporting AUC distributions obtained applying PARAFAC algorithm using three different numbers of PAR-FACT (panels along rows in the figure) on synthetic data generated using five different levels of SAMPLE-SIZE (along x-axis), different levels of SWAP-CON (different colors of the bars). Results refer to synthetic datasets of dimension equal to 50 nodes.

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