

Demo: predictive accuracy analysis and power analysis

Yong Zhang

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1 Model parameters

The numbers of time-points in the training sets tested include 50, 75, and 100. In each condition, 1000 training sets were simulated. One large test set with 100000 time-points was simulated to test for the predictive accuracy of models estimated from the training sets.

$$\Phi = \begin{pmatrix} .5 & .3 \\ .2 & .4 \end{pmatrix}$$

$$\Delta = \begin{pmatrix} 0 \\ 2 \end{pmatrix}$$

$$\Sigma = \begin{pmatrix} 10 & 4 \\ 4 & 10 \end{pmatrix}$$

2 Results

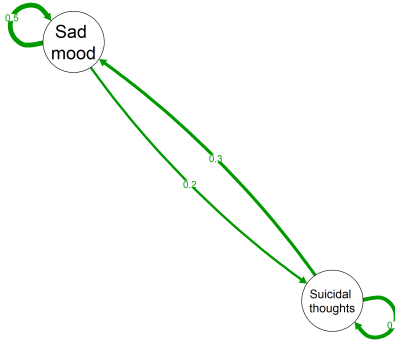


Figure 1: A hypothetical temporal network

Table 1: Results of power analysis

T	δ_1	δ_2	ϕ_{11}	ϕ_{12}	ϕ_{21}	ϕ_{22}
50	.060	.943	.871	.492	.250	.614
75	.048	.996	.975	.665	.401	.815
100	.066	1.000	.995	.776	.528	.915

Table 2: Results of predictive accuracy analysis

T	Expected predictive accuracy
50	.493
75	.708
100	.869