

Table S1. The network characteristics of the yeast PPI data

	LC		HTP		HTP_LC	
	Total	¹ Giant	Total	Giant	Total	Giant
Number of nodes	3268	3186	2488	2263	3780	3721
Number of edges	12058	12004	6766	6617	16505	16471
² $\langle k \rangle$	7.4	7.5	5.4	5.8	8.7	8.8
³ γ	-1.7	-1.7	-1.9	-1.9	-1.7	-1.7
Clustering Coefficient (C)	0.13	0.13	0.21	0.21	0.14	0.14
Modularity (Q)	0.62	0.62	0.69	0.68	0.55	0.55
⁴ Triangle density (T)	1.2	1.2	1.1	1.2	1.4	1.4
⁵ δ	-0.30	-0.31	-0.08	-0.10	-0.20	-0.20
ΔD	0.5458	0.5318	0.5689	0.5495	0.5207	0.5062

¹ The largest connected component
² average degree
³ the degree exponent in $P(k) \sim k^{-\gamma}$
⁴ the number of triangles per edge
⁵ the mixing exponent in $\langle k_{nn} \rangle(k) \sim k^{-\delta}$