

Table S1: Generating crosstalking schemes

Table S1: Generation of the 8 crosstalking schemes by turning on/off forward rate constants of the interaction between different forms and pools of STEP (phosphorylated and non-phosphorylated) and its phosphorylated substrates (Fynp, NR2Bp and ERKpp). “Fynp” and “NMDARp” represent any phosphorylated forms of active Fyn and NMDAR. STEP2 is a second pool of STEP. The crosstalking schemes are encoded in two different forms. One (first row) with a 3 member binary vector (see main text) and the other (second row) according to the numbered edges depicted in Fig. 6A of the main text.

kf (nM⁻¹·s⁻¹)	Crosstalking scheme							
	000	001	010	011	100	101	110	111
	135678	234678	15678	25678	1357	2457	157	257
STEP*Fynp	0.0042	0.0042	0.0042	0.0042	0.0042	0.0042	0.0042	0.0042
STEPp*Fynp	0.0042	0.0042	0.0042	0.0042	0	0	0	0
STEP*NMDARp	0.0094	0.0094	0.0094	0.0094	0.0094	0.0094	0.0094	0.0094
STEPp*NMDARp	0.0094	0.0094	0.0094	0.0094	0	0	0	0
STEP*ERKpp	0.01	0	0.01	0	0.01	0	0.01	0
STEPp*ERKpp	0.01	0	0	0	0.01	0	0	0
STEP2*ERKpp	0	0.01	0	0.01	0	0.01	0	0.01
STEP2p*ERKpp	0	0.01	0	0	0	0.01	0	0