

Table S2. Conditional probability matrix $p(n_1, n_2|s)$ for a homogeneous ON-ON system.

stimulus regime \ (n_1, n_2)	(0, 0)	(0, 1)	(1, 0)	(1, 1)
θ_1	1	0	0	0
$\theta_2 - \theta_1$	q	0	$(1 - q)$	0
$1 - \theta_2$	q^2	$q(1 - q)$	$q(1 - q)$	$(1 - q)^2$