

Suggested further readings

Phase plane analysis

Gerstner W, Kistler WM, Naud R, Paninski L. Neuronal dynamics: From single neurons to networks and models of cognition. Cambridge University Press; 2014 Jul 24. Chapter 4

Firing rate based models

Wilson HR, Cowan JD. Excitatory and inhibitory interactions in localized populations of model neurons. Biophysical journal. 1972 Jan 1;12(1):1-24.

Balanced amplification

Murphy BK, Miller KD. Balanced amplification: a new mechanism of selective amplification of neural activity patterns. Neuron. 2009 Feb 26;61(4):635-48.

Inhibition stabilized networks

Tsodyks MV, Skaggs WE, Sejnowski TJ, McNaughton BL. Paradoxical effects of external modulation of inhibitory interneurons. Journal of neuroscience. 1997 Jun 1;17(11):4382-8.

Ozeki H, Finn IM, Schaffer ES, Miller KD, Ferster D. Inhibitory stabilization of the cortical network underlies visual surround suppression. Neuron. 2009 May 28;62(4):578-92.

Sanzeni A, Akitake B, Goldbach HC, Leedy CE, Brunel N, Histed MH. Inhibition stabilization is a widespread property of cortical networks. eLife. 2020 Jun 29;9:e54875.

Stabilized supralinear networks

Ahmadian Y, Rubin DB, Miller KD. Analysis of the stabilized supralinear network. Neural Computation. 2013 Aug;25(8):1994-2037 or arXiv:1202-6670 q-bio.NC

Rubin DB, Van Hooser SD, Miller KD. The stabilized supralinear network: a unifying circuit motif underlying multi-input integration in sensory cortex. Neuron. 2015 Jan 21;85(2):402-17.

Hennequin G, Ahmadian Y, Rubin DB, Lengyel M, Miller KD. The dynamical regime of sensory cortex: Stable dynamics around a single stimulus-tuned attractor account for patterns of noise variability. Neuron. 2018 May 16;98(4):846-860.e5.

Lindsay GW, Rubin DB, Miller KD. A simple circuit model of visual cortex explains neural and behavioral aspects of attention. bioRxiv 2019.12.875534; doi: <https://doi.org/10.1101/2019.12.13.875534>

Ahmadian Y, Miller KD. What is the dynamical regime of cerebral cortex? 2019. arXiv:1908.10101 q-bio.NC; <https://arxiv.org/abs/1908.10101>

Network of binary neurons

Van Vreeswijk C, Sompolinsky H. Chaos in neuronal networks with balanced excitatory and inhibitory activity. Science. 1996 Dec 6;274(5293):1724-6.

Spiking neuronal networks

Brunel N. Dynamics of sparsely connected networks of excitatory and inhibitory spiking neurons. Journal of computational neuroscience. 2000 May 1;8(3):183-208.

