Suggested further readings

Text book:

Dayan P, Abbott LF. Theoretical neuroscience: computational and mathematical modeling of neural systems. Journal of Cognitive Neuroscience. 2003 Jan;15(1):154-5. Chapter 5

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 1 Research papers

Hodgkin-Huxley neuron model (how spike is generated):

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Point neuron model

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Short-term dynamics of synapses

Stevens CF, Wang Y. Facilitation and depression at single central synapses. Neuron. 1995 Apr 1;14(4):795-802.

Markram H, Tsodyks M. Redistribution of synaptic efficacy between neocortical pyramidal neurons. Nature. 1996 Aug;382(6594):807-10.

Markram H, Wang Y, Tsodyks M. Differential signaling via the same axon of neocortical pyramidal neurons. Proceedings of the National Academy of Sciences. 1998 Apr 28;95(9):5323-8.

Synaptic timing dependent plasticity

Song S, Miller KD, Abbott LF. Competitive Hebbian learning through spike-timing-dependent synaptic plasticity. Nature neuroscience. 2000 Sep;3(9):919-26.

Bi GQ, Poo MM. Synaptic modifications in cultured hippocampal neurons: dependence on spike timing, synaptic strength, and postsynaptic cell type. Journal of neuroscience. 1998 Dec 15;18(24):10464-72.

Abbott LF, Nelson SB. Synaptic plasticity: taming the beast. Nature neuroscience. 2000 Nov;3(11):1178-83.

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