A cheatsheet for computational neuroscientists

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770-2900 μm/ms	conduction speed of action potential in myelinated axons in the cortex [3]
250-380 μm/ms	conduction speed of action potential in unmyelinated axons in the cortex [3]
140 μm/ms	propagating speed of epileptiform waves in disinhibited hippocampal slices [7]
60-90 μm/ms	propagating speed of epileptiform waves in disinhibited neocortical slices [8, 1]
6-10 μm/ms	propagating speed of population activation in neocortical slices under conditions of unaltered excitability [10]

Table 1: Activity propagation speed

200-450 $\times 10^{-6}$ μm^{-3}	density of pyramidal neurons in rodent hippocampus [6]
50-60 μm	thickness of stratum pyramidal of rodent hippocampus (where pyramidal neurons lie) [4]
2261 mm^2	total cortical surface area of a hemisphere of a galago [2]
127 $\times 10^6$	estimated number of neurons in the above cortical area [2]
18577 mm^2	total cortical surface area of a hemisphere of a Baboon [2]
2.36 $\times 10^9$	estimated number of neurons in the above cortical area [2]

Table 2: Neuron density

0.77 mV	average peak unitary EPSP amplitude from baseline recorded from layer 5 pyramidal neurons in the rat visual cortex; note that the distribution is lognormal with some large EPSPs (> 5 mV) [9]
21.1 ± 10.6 nS	average membrane conductance change between Up and Down state during spontaneous activity in the prefrontal cortex in anesthetized ferrets [5]

Table 3: Synaptic activity

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