Computational Neuroscience: Neuronal Dynamics of Cognition

Synaptic Plasticity and Learning

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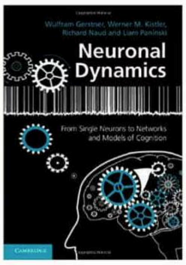
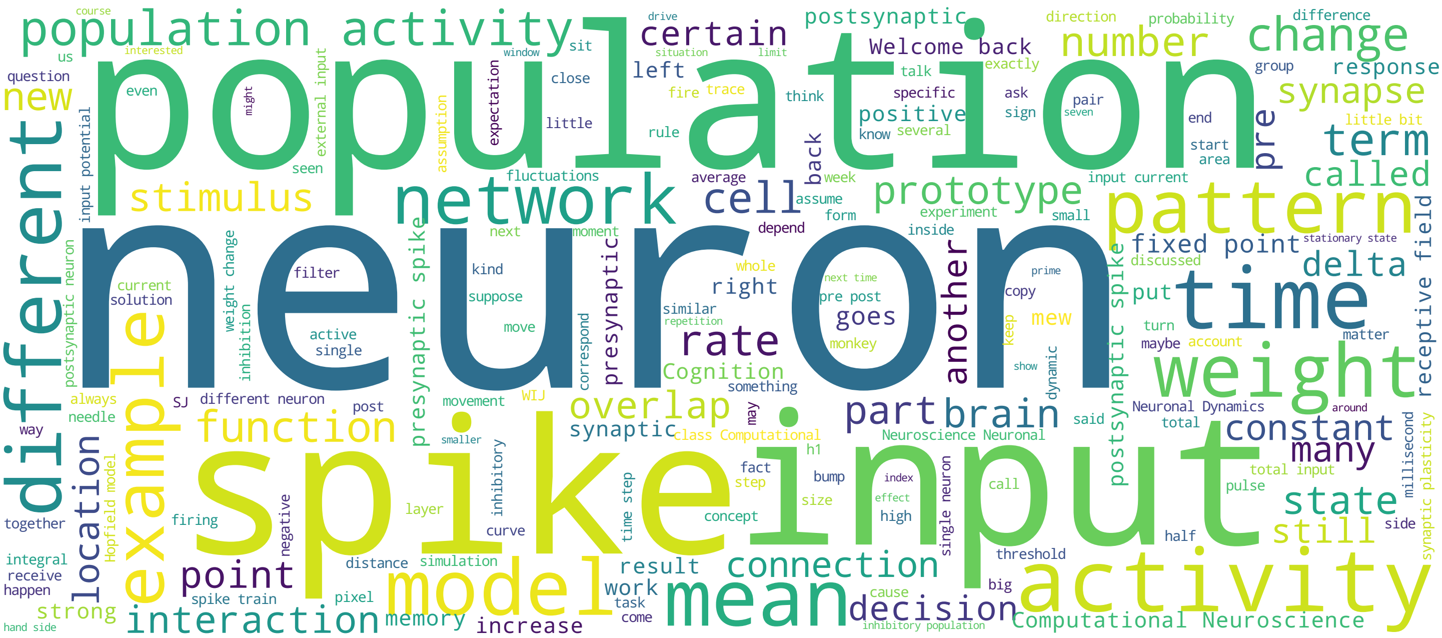
Reading for plasticity:
NEURONAL DYNAMICS
- Ch. 3.1.3



Cambridge Univ. Press

1. **Synaptic plasticity**
   motivation and aims
2. **Classification of plasticity**
   - short-term vs. long-term
   - unsupervised vs. reward modulated
3. **Model of short-term plasticity**
4. **Models of long-term plasticity**
   - Hebbian learning rules
   - Bienenstock-Cooper-Munro rule
5. **Spike-Timing Models of plasticity**
6. **From spiking models to rate models**
7. **Triplet STDP model**
8. **Online learning of memories**



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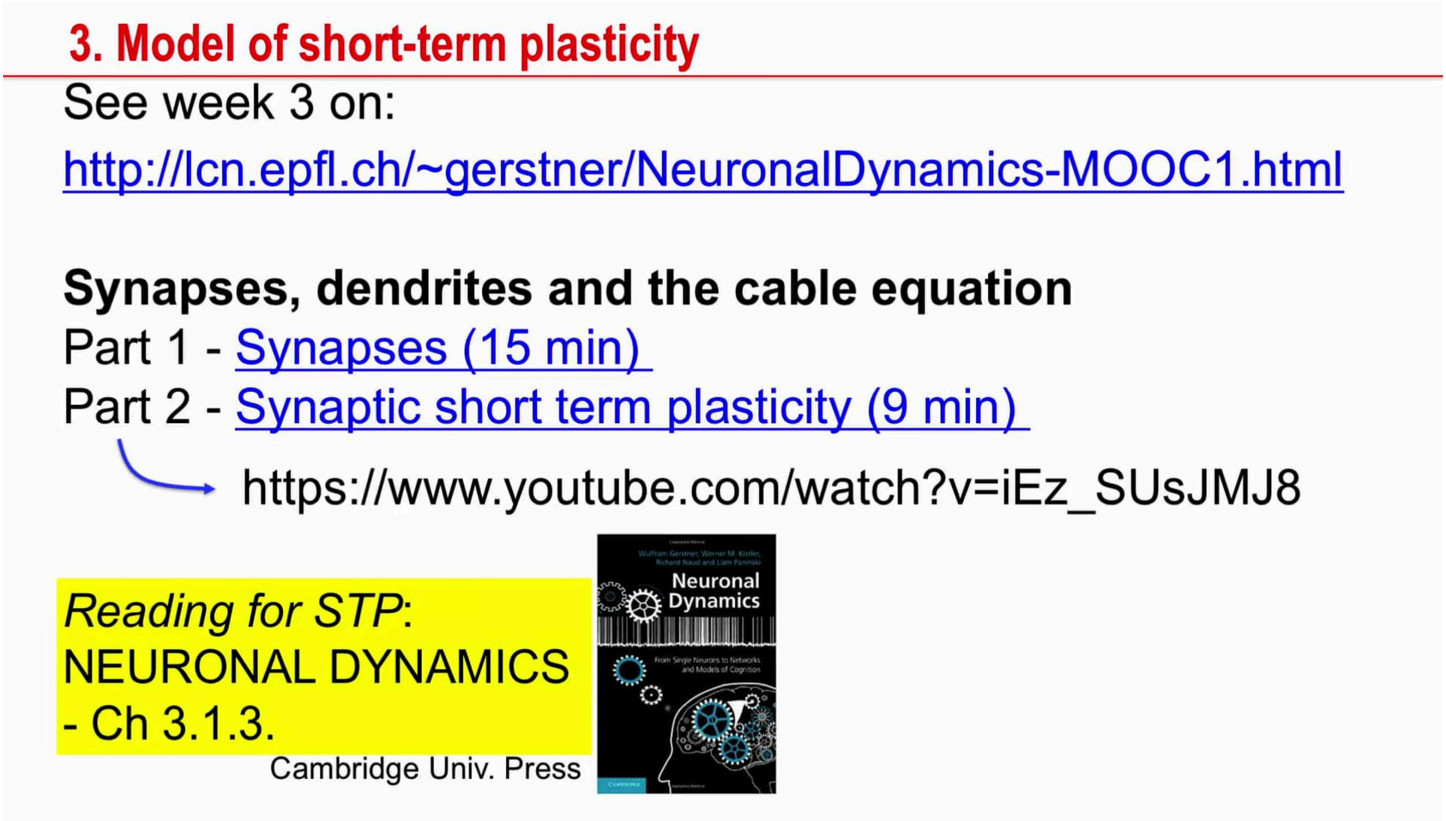
Video



Welcome back to the class, Computational Neuroscience, Neuronal Dynamics of Cognition. This is now a moment to talk about models of short-term plasticity. However, this will be a very short video because I will simply point you to an existing video which you find at the address given here...

Notes

Summary

0m 12s