Neural Dynamics, Exercise 6, November 27, 2014

Read the Chapter “Dynamic Field Theory” by Gregor Schöner, and Anne Schutte. This is essentially a script of the last two lectures.

1. Around Figure 2.5, write down the dynamics of the two activation variables, $u_1$ and $u_2$, that would represent the dynamics of the field in the two locations. These are the combination of the dynamics of a single activation variable with self-excitation and of two activation variables with mutual inhibitory coupling, both of which we discussed earlier in the lecture course. These equations were also listed in the earlier Chapter 1 you have read. Identify which term in these equations is related to which aspect of the interaction kernel of the field.

2. Read the portion about the A not B effect. Discuss Figures 2.14 and 2.15 by pointing out what is significant about the shown simulations.

3. Write down in one paragraph at least one point that you now understood better than in the lectures.

4. Formulate at least one question you have about the Chapter. Can be a question of clarification, of generalization, or of criticism.