READING IN THE BRAIN

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Reading is a highly complex task involving precise integration of vision, attention, rapid eye movements, and high-level language processing. In the past we [1] have constructed a biologically realistic model of the frontal eye fields that simulates the control of eye movements in human readers. The model couples processes of oculomotor control and cognition in a microcircuit of spiking neurons. In this talk I will give an introduction to neurolinguistics with special emphasis on reading and understanding in mathematical physics [2].

Keywords: Neurolinguistics, reading, realistic neural model

[1] Heinzle et al, J Neurosci 27:9391 and Psychol Rev 117:808

[2] Hepp, J Stat Phys 134:1033