Open Peer Commentary
Findlay & Walker: Saccade generation

Generating oculomotor and neuronal behavior in a neural field model of the superior colliculus

Thomas P. Trappenberg [a1] **and Raymond M. Klein** [a2]

[a1] Riken Brain Science Institute, The Institute of Physical and Chemical Research, 2-1 Hirosawa, Wako-shi, Saitama 351-0198 Japanthomas@brain.riken.go.jpwww.islab.brain.riken.go.jp/~thomas

[a2] Department of Psychology, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4J1 ray.klein@dal.cawww.dal.ca/~klein

Abstract

The functional schema in the Findlay & Walker target article presents an understanding of oculomotor behavior primarily at an algorithmic level of analysis. Although such an analysis is an important first step, present knowledge of the neuroscientific substrate for oculomotor behavior is sufficiently advanced to support, if not warrant, computationally explicit models explaining how oculomotor behavior is implemented by this substrate. The literature contains a growing number of examples of this strategy, which we illustrate using our work.