

A Neural Field Model of Sequence Perception

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Presentation Abstract Summary We show how temporal and spatial information can be represented as stable patterns in a dynamical system. It is hypothesized that human perception and knowledge about the world arise from these patterns. We describe how such patterns can be used in a neurologically-inspired model of speech perception, and show how word recognition arises when phonemes and their position in a word are mapped onto activation patterns. These activation patterns are used to identify the set of words whose prefix is the corresponding sequence, consistent with the “cohort”-based model of word recognition.

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