

Abstract Submitted
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Functional structure through dynamic clustering of neuronal networks¹ SARAH FELDT, MICHAL ZOCHOWSKI, University of Michigan — We propose a new method for detecting functional structure in neuronal networks based solely upon the information derived from the spike timings of the neurons. Unlike traditional algorithms that depend on knowledge of the topological structure of the network to parse the network into communities, we dynamically cluster the neurons to build communities with similar functional interactions. We define means to derive optimal clustering parameters and investigate what conditions have to be fulfilled to obtain reasonable predictions of functional structures.

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