

Anton Kibalnik

Using Multi-information to Determine Network Structure

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The concept of mutual information can be used as a measure of strength of interaction between two random variables in a network. However, we would like to examine the arrangement of more than just two nodes of a network at a time. For this, one can generalize the concept of mutual information to n number of random variables, called multi-information. However, a general method of using multi-information to determine network structure is lacking. Anton might try to develop such a method or formalism and apply it to cortical neuronal networks grown in vitro.
behavior.