

Variations on Measurements of Complexity in Dynamical Systems

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Abstract

In 1994, neuroscientists Edelman, Sporns, and Tononi proposed a quantitative measure of complexity or interconnectivity of neural networks called neural complexity. In 2012, Buzzi and Zambotti studied it in the setting of probability for families of random variables. They generalized neural complexity to a measurement called intricacy. In my talk, I will describe a way to measure the complexity of a dynamical system based on these concepts, including some results about these measurements and questions they raise.