1106-37-1927 **Benjamin N Wilson*** (wilsonbn@email.unc.edu) and **Karl Petersen**. *Measuring Complexity and Structure in Dynamical Systems.*

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 and generalized neural complexity to a measurement called intricacy. We will describe a way to measure the complexity and structure of a dynamical system based on these concepts, compare these measurements to the usual measure-theoretic and topological entropies, give some properties of these quantities, and look at some questions that they raise. (Received September 15, 2014)