Special Issue

Applications of Information Theory in Neuroscience

Message from the Guest Editor

The origins of Information Theory date back to Claude E. Shannon's publication of the paper "A Mathematical Theory of Communication" in the *Bell System Technical Journal* in 1948. In terms of the colloquial meaning of information, Shannon's paper deals with the carriers of information, and not with information itself. However, the importance and flexibility of Shannon's work was quickly recognized, and many attempts were made to apply his theory in various fields outside its original scope of communications. Very soon after Shannon's initial publication, several manuscripts were published which provide the foundations of much of the current use of Information Theory in neuroscience. This Special Issue aims to be a forum for the presentation of novel approaches in neuroscience using Information Theory, as well as the development of new information theoretic results inspired by problems in neuroscience. Research at the interface of neuroscience, Information Theory, and other disciplines is also welcome.

Guest Editor

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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