

## Special Issue

# Information Bottleneck: Theory and Applications in Deep Learning

### Message from the Guest Editors

Computational Intelligence (CI) concerns information processing with biologically or linguistically inspired methods, such as neural networks, evolutionary computing, fuzzy logic, probabilistic and Bayesian methods, and learning theory. In contrast to this method-centered definition of CI, information theory concerns the fundamental limits of information processing, irrespective of the employed method. Nevertheless, information theory offers a great selection of quantities capturing statistical dependencies and similarities that have found applications as diverse as the analysis of cognitive processes and the design of man-made systems. We wish to mention that the concurrent Special Issue “Information–Theoretic Approaches in Deep Learning” has a potential overlap with ours. We therefore reserve the right to prescreen submissions focused on neural networks and forward them to this other Special Issue in case of a better fit.

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### Guest Editors

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### Deadline for manuscript submissions

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## Entropy

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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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### Editor-in-Chief

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