Entropy Based Inference and Optimization in Machine Learning

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Message from the Guest Editors

Dear Colleagues,

Many modern machine learning algorithms are deeply rooted in the principles of statistical and information physics. A prominent example is the method of Maximum Entropy and its relations to Bayesian inference and optimization. Entropy-based methods have found many applications in modern machine learning, ranging from natural language processing to the development of approximate algorithms for large-scale data analysis. This special issue aims to focus on recent advances in entropy-based methods for inference and optimization problems in machine learning. We welcome submissions making novel contributions to the subject, both foundational as well as applied.

Prof. Stephen Roberts
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Guest Editors

Special Issue

Editor-in-Chief

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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.

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