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Information Theory in Machine Learning and Data Science

Guest Editor:

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Deadline for manuscript submissions: closed (15 May 2018)

Message from the Guest Editor

Dear Colleagues,

The purpose of this Special Issue is to highlight the stateof-the-art in applications of information theory to the fields of machine learning and data science. Possible topics include, but are not limited to, the following:

- Fundamental information-theoretic limits of machine learning algorithms
- Information-directed sampling and optimization
- Statistical estimation, optimization, and learning under information constraints
- Information bottleneck methods
- Information-theoretic approaches to adaptive data analysis
- Information-theoretic approaches to feature design and selection
- Estimation of information-theoretic functionals

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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.

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