

## Special Issue

# Information Theory Applications in Signal Processing

### Message from the Guest Editors

Information theory plays a fundamental role in the determination of theoretical performance limits for statistical estimation, detection, and compression. Its remarkable history of success during the last few decades has fueled research on information-guided principles for data analysis and signal processing. These dynamic and fast-growing fields have to cope with increasingly complex scenarios and novel applications in component analysis, machine learning, and communications. Hence, there is a need for specific information theoretic criteria and algorithms that work in each of the considered situations and attain a set of desired goals, for instance, an enhancement in the interpretability of the solutions, improvements in performance, robustness with respect to the model uncertainties and possible data perturbations, a reliable convergence for the algorithms and any other kind of theoretical guarantees. In this Special Issue, we encourage researchers to present their original and recent developments in information theory for advanced methods in signal processing.

Dr. Wojciech Samek

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### Guest Editors

Prof. Dr. Sergio Cruces  
Dr. Rubén Martín-Clemente  
Dr. Wojciech Samek

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### Deadline for manuscript submissions

closed (15 January 2019)



## 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

Prof. Dr. Kevin H. Knuth

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