Special Issue

Finite-Length Information Theory

Message from the Guest Editors

This Special Issue aims at collecting recent results in finite-length information theory and its intersection with neighboring fields. Possible topics include, but are not limited to:

- One-shot information theory and information spectrum methods.
- Nonasymptotic performance bounds for point-to-point and multiterminal communication systems.
- Refined asymptotics: error exponents, dispersion, and moderate deviations analysis.
- Error-correcting codes: design guidelines and performance analysis in the finite-length regime.
- Lossless and lossy data compression at finite blocklengths.
- Delay-constrained joint source-channel coding.
- Exploiting channel feedback in code design to improve complexity–delay–reliability tradeoffs.
- Receiver design: constellation, quantization, and iterative decoding.
- Information theory for the control of dynamical systems.

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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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