Special Issue

Information Theory for Communication Systems

Message from the Guest Editors

The founding work of the field of information theory, Claude Shannon's 1948 article "A mathematical theory of communication", concerns the fundamental limits of communication systems. It is, therefore, not surprising that, since its origins, information theory has been very successful in providing performance benchmarks and design guidelines for numerous communication scenarios. This Special Issue aims to bring together recent research efforts that apply information theory to characterize and study the fundamental limits of communication systems. Possible topics include, but are not limited to the following:

- Asymptotic performance characterizations, such as channel capacity, second-order rates, or error exponents, of communication channels
- Nonasymptotic performance bounds for communication systems
- Information-theoretic limits of delay- and energy-limited communication systems
- Information-theoretic analyses of signal constellations and low-precision decoders
- Error-correcting codes for communication systems

Guest Editors

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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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