Special Issue

Rate-Distortion Theory and Information Theory

Message from the Guest Editor

Rate distortion theory has historically received less attention than Channel Capacity, primarily due to the difficulty of crafting physically meaningful, mathematically tractable source models and fidelity criteria. It is the goal of this Special Issue to reemphasize the critical accomplishments of rate distortion theory and to highlight new directions in rate distortion theoretic and information theoretic research. Toward this end, we solicit papers on source models and fidelity criteria for physical sources and the resulting rate distortion bounds, historical perspectives on rate distortion theory, information theoretic techniques in machine learning, information theoretic approaches for biological signal processing, the rate distortion theory impact on lossy source coding, the rate distortion theory of multiple correlated sources, and new directions in rate distortion theoretic and information theoretic research that move beyond the standard independent and identically distributed, Gaussian, and Bernoulli source models.

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.

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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