# **Special Issue**

### Combinatorial Aspects of Shannon Theory

#### Message from the Guest Editors

Combinatorial tools have played a key role in information theory since as early as Shannon's 1948 paper, which used counting techniques to study constrained coding and random coding-an early instance of the probabilistic method-to prove the channel coding theorem. Information theory, in turn, has inspired work in combinatorics, inter alia, through Shannon's work on the zero-error capacity and subsequent work on error-free source-coding and communications. This cross fertilization continued unabatedly over the years and has led to numerous results in both fields. It is the purpose of this Special Issue to explore recent developments at the interface between the two fields. While appreciating the impact that combinatorics has had on code construction, our focus is more on Shannon theory than on coding theory. On the combinatorics side, we seek results where information theory plays a key role either in the formulation or in the solution.

#### **Guest Editors**

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### Message from the Editor-in-Chief

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