



## Information Theory, Forecasting, and Hypothesis Testing

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### Message from the Guest Editor

Dear Colleagues,

Over the past 20 years, information theory and, in particular, ideas and methods of source coding (or data compression) have been used to solve many important forecasting and statistical analysis tasks. As a result of applying information theory, an asymptotically consistent goodness-of-fit test exists for stationary ergodic processes, an asymptotically optimal method exists for predicting time series, as well as some other important and elegant results. Despite the many results obtained, many open problems remain in the field of forecasting, testing statistical hypotheses, and close fields, which are similar to information theory and can probably be solved on the basis of its ideas and methods.

This Special Issue is intended to provide a forum for the presentation of methods for applying information theory to forecasting problems, testing hypotheses, and related fields. In addition, some new ideas in these areas may be mutually beneficial for development of information theory.

Prof. Boris Ryabko

*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.

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