Special Issue

Algebraic Coding and Control Theory

Message from the Guest Editor

The algebraic coding theory studies the design of errorcorrecting codes for the reliable transmission of information across noisy channels. The interconnections between control theory and coding, which delve deep into the realm of linear dynamical systems, are not just surface-level. They are profound and widely recognized, adding a layer of intrigue to the study of these fields. In particular, the algebraic structure of convolution codes allows techniques from the theory of linear dynamical systems to be used. The connection between these concepts helps us understand these codes' properties better. More explicitly, this connection is because the concepts of controllability and observability of linear systems can be expressed within the convolutional codes as non-catastrophic characters.

Guest Editor

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The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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