Algebraic Coding and Control Theory

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Message from the Guest Editor

Dear Colleagues,

The algebraic coding theory studies the design of error-correcting 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.

Dr. Maria Isabel Garcia-Planas
Guest Editor

Special Issue

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Message from the Editor-in-Chief

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