



Seminar

Systems and Control Group - CIDMA

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Departamento de Matemática, Universidade de Aveiro
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The relationship between non-catastrophicity and other
properties of convolutional codes

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Abstract

In contrast to linear block codes, not every convolutional code possesses a parity-check matrix, i.e. not every convolutional code is non-catastrophic. However, the property of being non-catastrophic plays an important role for other characteristics of convolutional codes, such as column distances and free distance as well as self-duality. In this talk, we explain how the catastrophicity/non-catastrophicity of a convolutional code influences its distance properties and its self-duality. We also present some examples for code parameters for which these characteristics are independent of each other.

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