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SEMINARIO DE ESTADÍSTICA e INVESTIGACIÓN OPERATIVA I

A Game Theoretical Approach to the Classification Problem in Gene Expression Data Analysis

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ABSTRACT:

Microarray technology allows for the evaluation of the level of expression of thousands of genes in a sample of cells under a given condition. In this paper, we introduce a methodology based on cooperative Game Theory for the selection of groups of genes with high power in classifying samples, according to gene expression patterns. The connection between microarray games and classification games is discussed and the use of the Shapley value to measure the power of genes for classification is motivated on particular instances and compared to the interaction index.

***Invitado dentro del programa en TID del Instituto de Matemática Interdisciplinar (IMI).**

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