

ANALYSIS OF GO COMPOSITION OF GENE CLUSTERS BY USING MULTIATTRIBUTE DECISION RULES

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Abstract

In this paper, a novel method for characterizing the Gene Ontology (GO) composition of the gene clusters on basis of the decision rules is presented. The rules are expressed as logical functions of the Gene Ontology terms which are interpreted as binary attributes.

A new method for evaluating the quality of decision rules based on statistical significance is developed. The presented approach is applied to the well-known data set and the results are compared with the results obtained by other authors.

Keywords: Gene Ontologies, decision rules, attributes, rules quality evaluation, gene clusters, DNA microarrays, bioinformatics, rough sets theory