

Problems of Boolean Reasoning Based Biclustering Parallelization

Authors : Marcin Michalak

Abstract : Biclustering is the way of two-dimensional data analysis. For several years it became possible to express such issue in terms of Boolean reasoning, for processing continuous, discrete and binary data. The mathematical backgrounds of such approach – proved ability of induction of exact and inclusion-maximal biclusters fulfilling assumed criteria – are strong advantages of the method. Unfortunately, the core of the method has quite high computational complexity. In the paper the basics of Boolean reasoning approach for biclustering are presented. In such context the problems of computation parallelization are risen.

Keywords : Boolean reasoning, biclustering, parallelization, prime implicant

Conference Title : ICCSIC 2019 : International Conference on Computer Sciences and Intelligent Computing

Conference Location : Rome, Italy

Conference Dates : November 11-12, 2019