ON EFFICIENT IDENTIFICATION OF MULTIVARIATE PARTIAL OUTLIERS

NICORICI GALINA[*]

In this paper, in the context of multivariate outlier identification procedures, it is introduced the generalization term partial outlier. The introduction contains an overview of specific multivariate approaches to outlier problem and brief descriptions of some particular methods. Special attention is paid to the case of high-dimensional data, where the partial outlier term makes sense. The goal of the paper is to propose an original procedure that uses a weighting scheme to identify partial outliers.

Keywords: high-dimensional data, Mahalanobis distance, multivariate outliers, marginal outliers, partial outliers, projection pursuit, PCOut, robust estimation, weighting scheme.

[*] Ph.D. student, Department of Probability Theory and Statistics, Faculty of Mathematics and Computer Science, University of Bucharest.