

CREATIVE MATH.
14 (2005), 67 - 70

The estimation of the accuracy of an indicator in educational testing theory, using the bootstrap method

CRISTIAN MARINOIU

ABSTRACT. Often, the researcher in educational testing theory, would like to have a model that simply explains the obtained scores. In order to establish if such a model is adequate, an indicator based on the eigenvalues of the empirical covariance matrix of the scores is used. This paper presents the standard methodology to construct this indicator, its bootstrap estimate of the standard error and its percentile bootstrap confidence interval. Finally, for a case study, a program that implements in Matlab the described algorithm provides the desired results.

UNIVERSITY OF PLOIEȘTI
PETROLEUM - GAS UNIVERSITY OF PLOIEȘTI
BD. BUCUREȘTI 39, 100680 PLOIEȘTI, ROMANIA
E-mail address: marinoiu.c@yahoo.com