Package ‘RCCPCA’

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Description The RCC_PCA criterion is a tool to determine the optimal number of components to retain in PCA; See Alshammri (2021).
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RCC_PCA

Retained Component Criterion for Principal Component Analysis

Description

The RCC_PCA criterion is a new tool to determine the optimal number of components (i.e. PCs) to retain for Principal Component Analysis (PCA). This criterion balances between the following two desires, reducing the dimension of the data and increasing the accuracy of the final results of PCA; See Alshammri (2021).
Usage

\texttt{RCC\_PCA(x)}

Arguments

\texttt{x}  
a N-by-m data matrix, where the rows are "N" observations, and the columns are "m" variables

Value

The values of RCC criterion

Author(s)

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References


Examples

##The data matrix x is the scaled first four variables of "iris data" with m=4 and N=150.
ex=scale(iris[,1:4])

##calculate and plot the RCC\_PCA values of x after applying PCA.
myresults=RCC\_PCA(x)

##lists the values of RCC criterion
myresults
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