A THRESHOLDED FUZZY C-MEANS ALGORITHM FOR SEMI-FUZZY CLUSTERING

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Summary

In this paper, the problem of achieving 'semi-fuzzy' or 'soft' clustering of multidimensional data is discussed. A technique based on thresholding the results of the fuzzy c-means algorithm is introduced. The proposed approach is analysed and contrasted with the soft clustering method (see S. Z. Selim and M. A. Ismail, Pattern Recognition 17, 559-568) showing the merits of the new method. Separation of clusters in the semi-fuzzy clustering context is introduced and the use of the proposed technique to measure the degree of separation is explained.

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