

---

Subject: Re: D vector pattern classification tips  
Posted by [velt](#) on Wed, 13 Sep 1995 07:00:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <Pine.SOL.3.91.950912152226.18036A-100000@chroma.mbt.washington.edu>, Russ Welti <rwelti@chroma.mbt.washington.edu> writes:

> I am doing Web and bibliography searches on clustering  
> algorithms, with limited success.  
> Has anyone done any of this before or have a good  
> pointer they could offer? A favorite textbook? A web page?

Textbooks:

J. Hartigan: Clustering Algorithms. New York: John Wiley & Sons, 1975  
A Jain and R Dubes. Algorithms that cluster data. Englewood Cliffs,  
NJ: Prentice Hall, 1988.

Clustering algorithms in the IDL user library:

- Join (Hierarchical clustering);
- Kmeans (partitioning). The routine in the user's library is not a standard k-means, but something that uses the same functional as k-means does.

It appears that k-means does not exist in IDL 4.0, but I haven't verified that.

I have written an IDL version of fuzzy c-means, which is the fuzzy version of k-means. I can post it if anyone desires.

If you don't know how many clusters you have, there are ways of using standard clustering techniques to detect the number of classes, such as minimizing the Davis-Boulden index.

Robert Velthuisen  
Digital Medical Imaging Program,  
H. Lee Moffitt Cancer center and Research Institute;  
Dept. of Radiology, University of South Florida.

---