Subject: Re: Clustering
Posted by kidpix on Mon, 31 Oct 2011 11:56:06 GMT
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Hi Kai,
to mee it make a lot of sense. It looks similar to what I'm doing with spectra.

I assume you have a 50 bands - 2000x360=720000 pixels images.

I'm using CLUSTER_TREE to classify all the spectra, there is as sample of what I do.

```
;- fake data
seed_value = 5L
K_max = 20
J_max = 36
A = RANDOMN(seed, K_max, 50, J_max)

;-- histogram from pixel K=J=0 A[K,*,J]
 K=0
 J=0
 plot,HISTOGRAM(A[K,*,J],BINSIZE=(max(A)-min(A))/149,MIN=min( A),MAX=max(A)),psym=10

help,A(*,0,*) ;-- 2000x360 pixels images
help,A(0,*,0) ;-- each image has 50 bands

;-- assemble the histogram array
Histo_A = fltarr(K_max, 150, J_max)

for K=0,K_max-1 do  for J=0,J_max-1 do   Histo_A[K,*,J]=
HISTOGRAM(A[K,*,J],BINSIZE=(max(A)-min(A))/149,MIN=min(A),MA X=max(A))

help,Histo_A

;-- arrange the data as a [K_max*J_max, 150] array
Histo_A_array = fltarr(K_max*J_max, 150)
  for K=0,K_max-1 do  for J=0,J_max-1 do Histo_A_array[K*J,*] = Histo_A[K,*,J]

;-- Clusterization using cluster_tree
distance_matrix = DISTANCE_MEASURE(Histo_A_array, MEASURE = 0,/matrix
clusters_dend   =  CLUSTER_TREE(distance_matrix,linkdistance,LINKAGE=2,data=His
to_A_array,MEASURE=0)

cluster_matrix  = cluster_member(clusters_dend)
```

The only problem is that you have to explore the whole cluster_matrix and decide which are

meaningful clusters to you.
[the cluster_member comes from https://groups.google.com/forum/#!topic/comp.lang.idl-pvwave/UUVL0MkS0zE]

Cheers,
Mario.