**Data set: Boston housing**

FCM with c =6 clusters

Principle of justifiable granularity with the criterion

V = cov\* sp

Where

Cov = 

with ||. || computed as



and

sp =1-

The

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Info granule # | 1 | 2 | 3 | 4 | 5 | 6 |
| opt | 0.40 | 0.325 | 0.325 | 0.20 | 0.45 | 0.30 |
| V | 31.32 | 28.62 | 24.58 | 28.99 | 15.65 | 35.99 |

My implementation with c=6 and beta=1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Info granule # | 1 | 2 | 3 | 4 | 5 | 6 |
| opt | 0.25 | 0.275 | 0.45 | 0.35 | 0.375 | 0.425 |
| V | 56.5514003462 | 47.6141599463 | 18.8924746526 | 26.4620941859 | 37.992368654 | 12.91640376 |