

### DBSCAN SUMMARY: scnp1

#### 1. Iteration 1:

DBSCAN clustering for 20000 objects.  
 Parameters: eps = 0.15, minPts = 50  
 The clustering contains 4 cluster(s) and 2413 noise points.

0	1	2	3	4
2413	16765	625	145	52

Cluster number 0									
0	1	2	3	4	5	6	7	8	9
262	8	247	68	34	85	439	23	837	410
Cluster number 1									
0	1	2	3	4	5	6	7	8	9
1677	2252	1665	1868	1911	1691	1497	2109	519	1576
Cluster number 2									
0	1	2	3	4	5	6	7	8	9
20	0	2	1	1	0	5	0	593	3
Cluster number 3									
0	1	2	3	4	5	6	7	8	9
2	7	7	28	13	63	8	9	1	7
Cluster number 4									
0	1	2	3	4	5	6	7	8	9
6	0	1	0	0	0	4	0	37	4

#### 2. ITERATION 2 : Cluster 1

DBSCAN clustering for 16765 objects.  
 Parameters: eps = 0.15, minPts = 65  
 The clustering contains 2 cluster(s) and 269 noise points.

0	1	2
269	4913	11583

Cluster number 0									
0	1	2	3	4	5	6	7	8	9
27	2	20	26	21	35	44	8	42	44
Cluster number 1									
0	1	2	3	4	5	6	7	8	9
1463	0	554	37	99	22	1134	4	433	1167
Cluster number 2									
0	1	2	3	4	5	6	7	8	9
187	2250	1091	1805	1791	1634	319	2097	44	365

### 3. Iteration 3: cluster 2 of iteration 2

Despite increasing minPts significantly, this cluster doesn't break into sub clusters. The number of points in the cluster decreases quite slowly with increase indicating most points are seeds.

```
DBSCAN clustering for 11583 objects.  
Parameters: eps = 0.15, minPts = 500  
The clustering contains 1 cluster(s) and 1537 noise points.
```

0	1
1537	10046

```
Cluster number 0  
0 1 2 3 4 5 6 7 8 9  
70 63 134 247 228 331 102 173 24 165  
  
Cluster number 1  
0 1 2 3 4 5 6 7 8 9  
117 2187 957 1558 1563 1303 217 1924 20 200
```

```
DBSCAN clustering for 11583 objects.  
Parameters: eps = 0.15, minPts = 5000  
The clustering contains 1 cluster(s) and 3307 noise points.
```

0	1
3307	8276

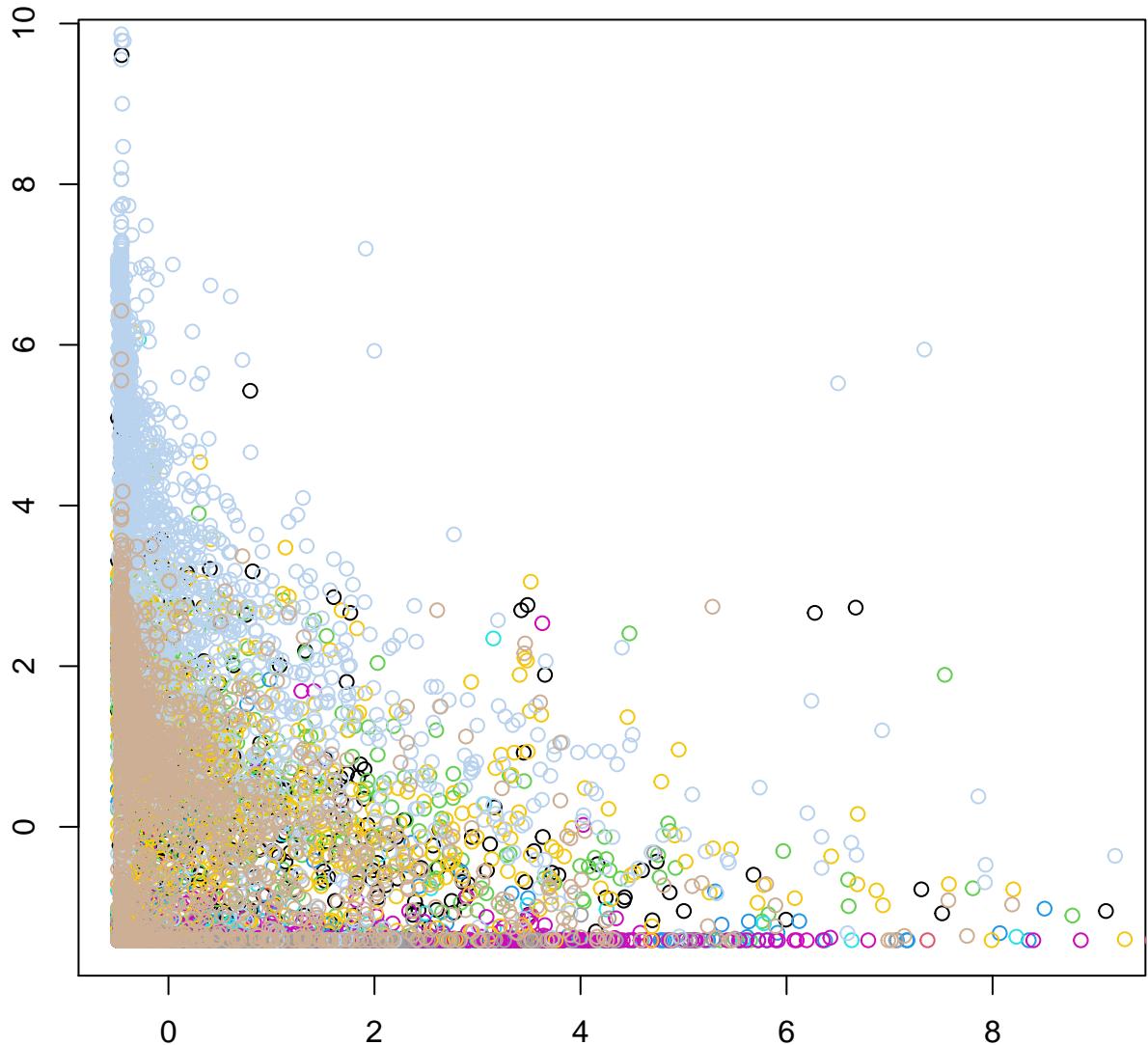
```
Cluster number 0  
0 1 2 3 4 5 6 7 8 9  
103 245 272 582 568 691 134 454 26 232  
  
Cluster number 1  
0 1 2 3 4 5 6 7 8 9  
84 2005 819 1223 1223 943 185 1643 18 133
```

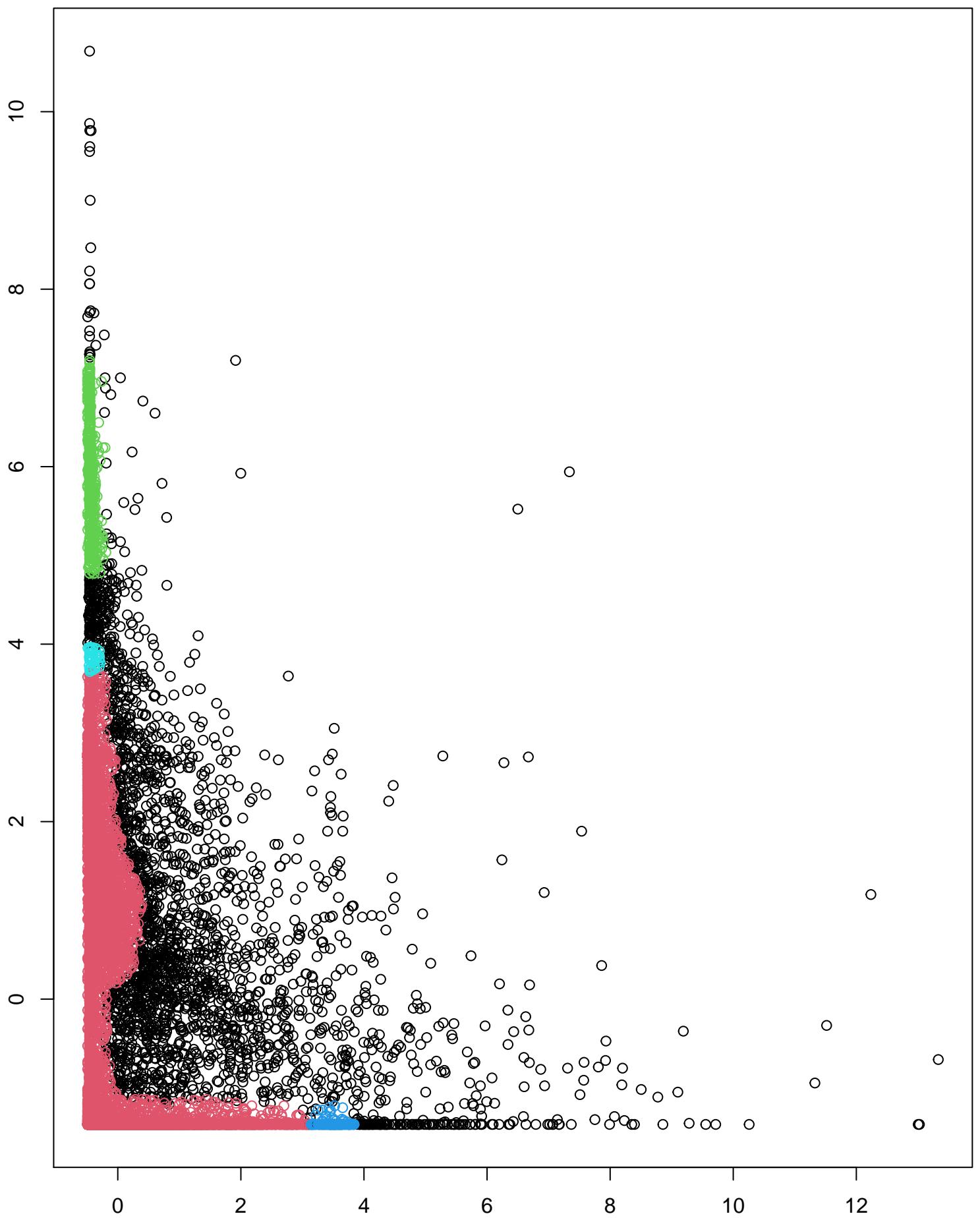
Legend for colours of clusters:

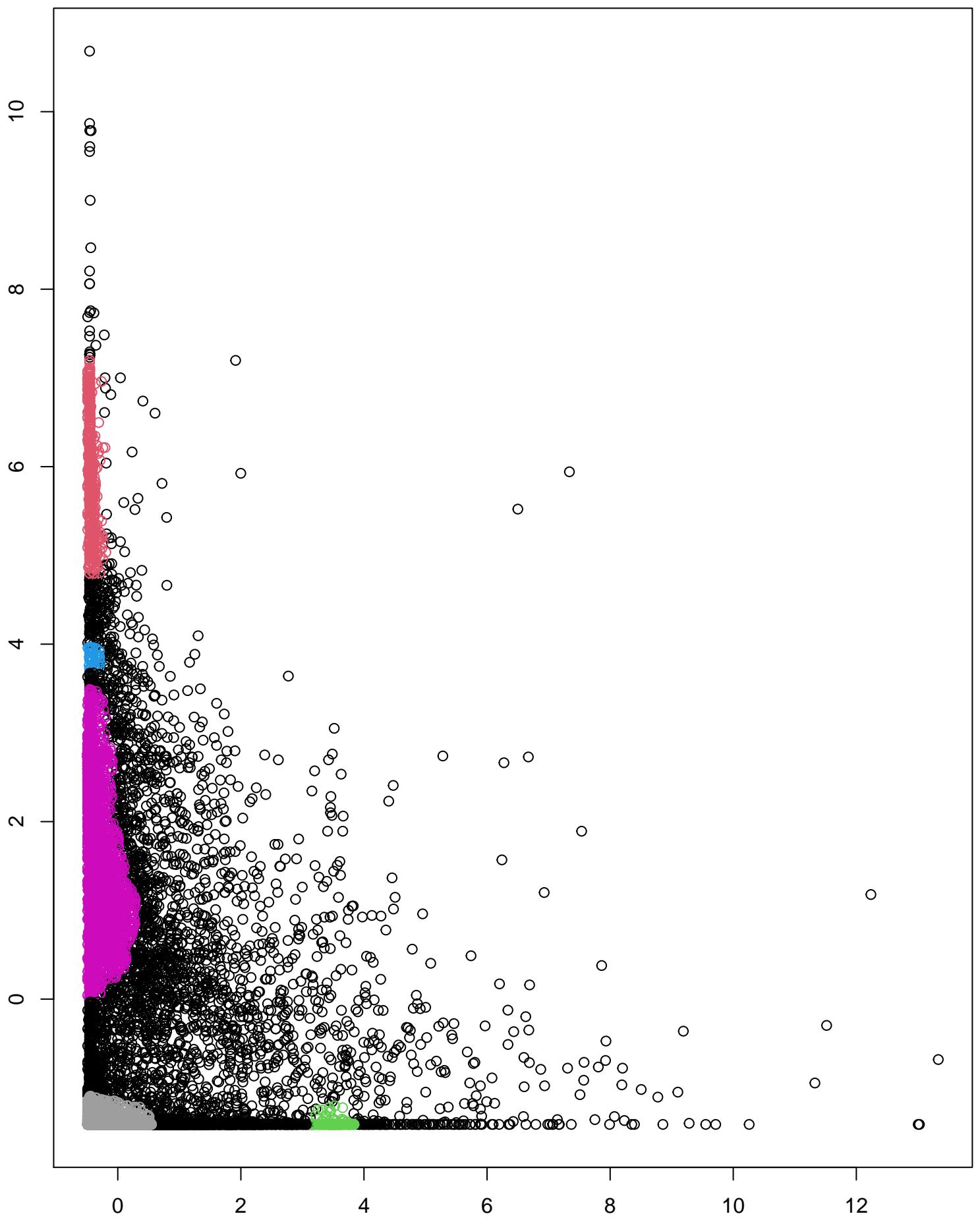
1. Iteration 1: Cluster 1: pink  
Cluster 2: green  
Cluster 3: blue  
Cluster 4: cyan
2. After iteration 3: Cluster 1 splits into purple in iteration 2 and gray in iteration 3.

Noise is in black.

## Subsample :







## DBSCAN SUMMARY: Scnp2

### 1. Iteration 1:

```
DBSCAN clustering for 20000 objects.  
Parameters: eps = 0.15, minPts = 40  
The clustering contains 3 cluster(s) and 1862 noise points.
```

0	1	2	3
1862	6642	11441	55

### Summary of clusters:

```
Cluster number 0  
0 1 2 3 4 5 6 7 8 9  
202 9 193 93 69 162 337 36 432 329
```

```
Cluster number 1  
0 1 2 3 4 5 6 7 8 9  
1603 2 663 52 115 32 1301 9 1522 1343
```

```
Cluster number 2  
0 1 2 3 4 5 6 7 8 9  
161 2248 1064 1815 1775 1612 314 2092 33 327
```

```
Cluster number 3  
0 1 2 3 4 5 6 7 8 9  
1 8 2 5 0 33 1 4 0 1
```

### 2.1 Iteration 2: Cluster 2

```
DBSCAN clustering for 11441 objects.  
Parameters: eps = 0.15, minPts = 750  
The clustering contains 1 cluster(s) and 1952 noise points.
```

0	1
1952	9489

```
Cluster number 0  
0 1 2 3 4 5 6 7 8 9  
79 83 165 369 312 388 132 222 16 186
```

```
Cluster number 1  
0 1 2 3 4 5 6 7 8 9  
82 2165 899 1446 1463 1224 182 1870 17 141
```

## 2.2 Iteration 2: cluster 1:

```
DBSCAN clustering for 6642 objects.  
Parameters: eps = 0.15, minPts = 70  
The clustering contains 3 cluster(s) and 582 noise points.
```

0	1	2	3
582	5442	506	112

Cluster number 0

0	1	2	3	4	5	6	7	8	9
79	2	74	15	10	13	90	6	168	125

Cluster number 1

0	1	2	3	4	5	6	7	8	9
1507	0	587	36	104	19	1207	3	764	1215

Cluster number 2

0	1	2	3	4	5	6	7	8	9
9	0	2	0	0	0	3	0	489	3

Cluster number 3

0	1	2	3	4	5	6	7	8	9
8	0	0	1	1	0	1	0	101	0

Plots: The five clusters we see finally in the plots are highlighted in gray colour.

Colour legend

Iteration 1: Blue: cluster 3

Green: cluster 2

Pink: cluster 1

Black: noise

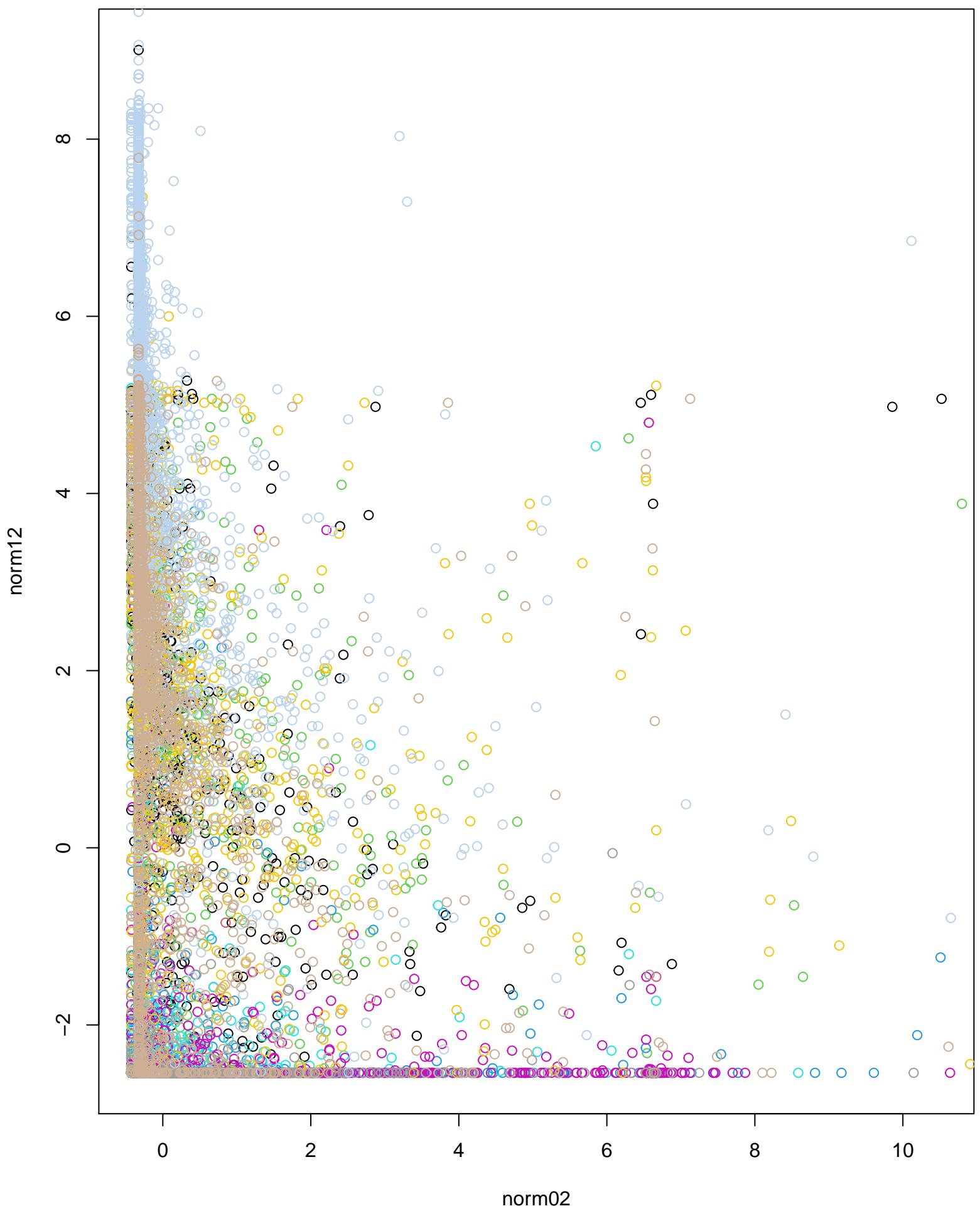
Iteration 2: Subclusters of cluster 1:

Blue: cluster 1

Purple: cluster 2

Orange: cluster 3

### Subsample :



### Clusters:

