```
start
```

```
data
threshold
```

```
MAX_LOOPS = 500
N = len(data)
index = [0,1,...,N]
origin = self._calculate_origin()
cluster_structure = self._create_cs()
```

```
len(index)>0?
```
no

yes

```
tcentroid_ri = self._furthest(data)
tcentroid_i = index[tcentroid_ri]
```

```
acluster = self._cluster(tcentroid_i)
anomaly = np.full(len(index), False)
anomaly[tcentroid_i] = True
```

```
A/B
```

```
new_acluster.power>threshold?
```
no

yes

```
cluster_structure.add_cluster(acluster)
```

```
data = data[not anomaly]
index = index[not anomaly]
```

```
return cluster_structure.labels
```

```
A
```

```
loop = 0
```

```
loop<MAX_LOOPS?
```
yes → B

no

```
loop+=1
points_origin = ...  # calculate distance
acentroid = acluster.centroid
points_acentroid = ...# calculate distance
```

```
anomaly = points_origin < points_acentroid
anomaly_indices = index[anomaly]
new_acluster =
        self._cluster(anomaly_indices)
```

```
acluster==new_acluster?
```
yes → B

no

```
acluster = new_acluster
```