

demoConsolidationSimple

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```
In [1]: from algorithms.db import getPositions, normalize, deletePositions
        from algorithms.position import Position
        from algorithms import consolidation as cs
        import matplotlib as mp
```

```
%pylab inline
```

Populating the interactive namespace from numpy and matplotlib

Nos conectamos a la base de datos:

```
In [21]: dbname = "bahia"
        #recurso = "tetra:12082781"
        recurso = "tetra:12082364"
        limit = 2000
        cmd = "SELECT id, recurso, latitud, longitud, velocidad, orientacion, UNIX_TIMESTAMP(fecha) FR
```

```
In [22]: data = getPositions(dbname, cmd, recurso, limit)
```

Tipificamos las variables:

```
In [23]: [normalData, normalLats, normalLongs] = normalize(data)
```

Consolidación por distancia:

```
In [39]: result = cs.ConsolidationByDistance(normalData, 0, 0.1, None)
        #result = cs.ConsolidationByTime(normalData, 20)
        #result = cs.ConsolidationByThinning(normalData, 2, 5)
```

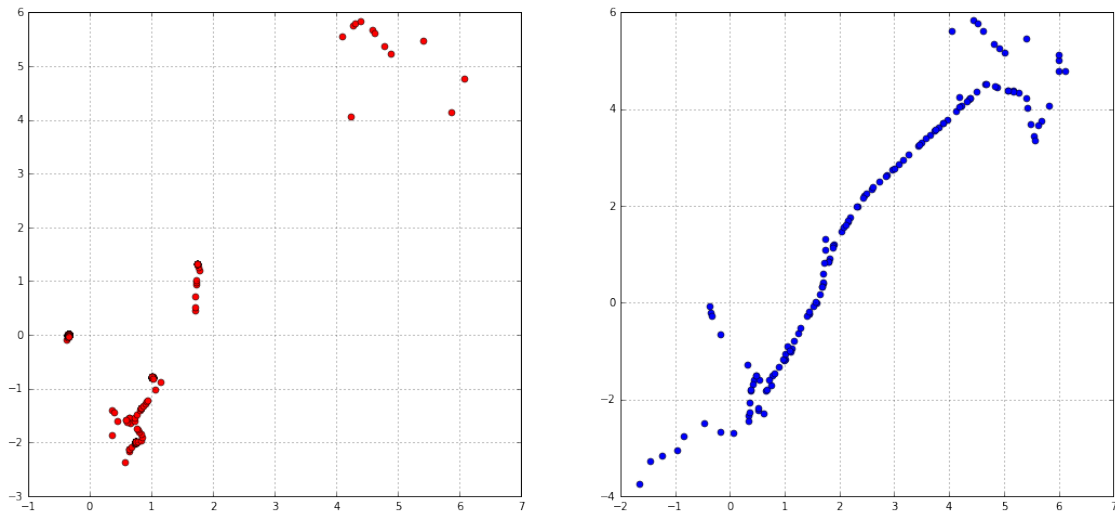
```
resultLats = []
resultLongs = []
borrarLats = []
borrarLongs = []
```

```
for p in result:
    resultLats.append(p.lat)
    resultLongs.append(p.lon)
```

```
borrar = [x for x in normalData if x not in result]
```

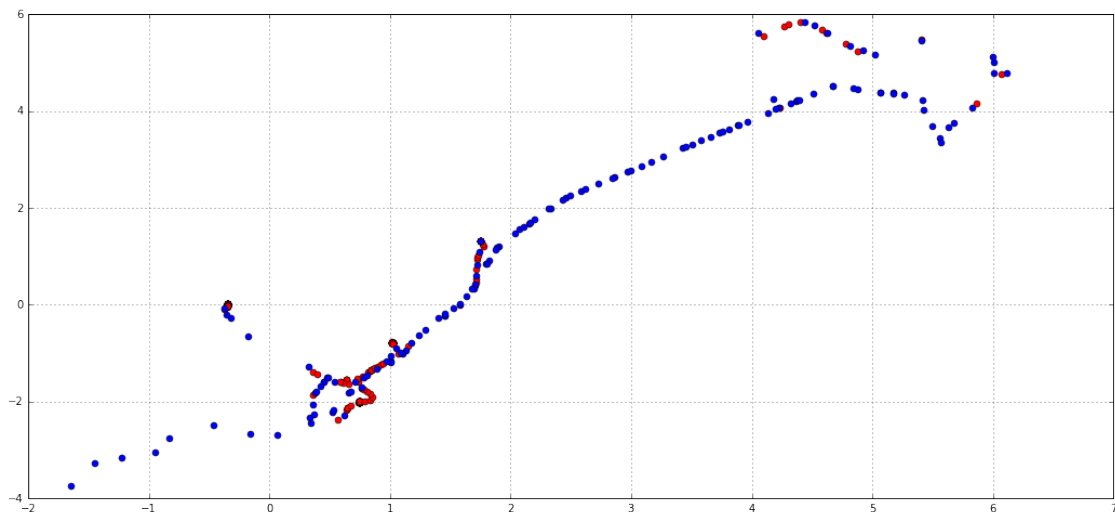
```
for p in borrar:
    borrarLats.append(p.lat)
    borrarLongs.append(p.lon)
```

```
In [40]: plt.figure(1, figsize=(18,8))
plt.subplot(121)
ax = plt.gca()
ax.grid(True)
plt.plot(borrarLats, borrarLongs, 'ro');
plt.subplot(122)
ax = plt.gca()
ax.grid(True)
plt.plot(resultLats, resultLongs, 'bo');
```



```
In [41]: print "De {0} posiciones se mantienen {1}".format(str(len(normalData)), str(len(result)))
plt.figure(1, figsize=(18,8))
ax = plt.gca()
ax.grid(True)
plt.plot(borrarLats, borrarLongs, 'ro',resultLats, resultLongs, 'bo');
```

De 2000 posiciones se mantienen 137



Borrado de posiciones:

```
In [42]: print "Se borran {} posiciones".format(str(len(borrar)))
```

Se borran 1863 posiciones

```
In [43]: deletePositions("bahia_test", borrar);
```

```
id:3299806813, recurso:tetra:12082364, latitud:6.07633213247, longitud:4.76226122584, velocidad:14, ori
id:3299807856, recurso:tetra:12082364, latitud:5.86472705623, longitud:4.13924692288, velocidad:37, ori
id:3299809975, recurso:tetra:12082364, latitud:4.23621463944, longitud:4.05106754436, velocidad:66, ori
id:3299810610, recurso:tetra:12082364, latitud:4.10037249099, longitud:5.540039336, velocidad:85, orien
```

...

Se han eliminado 1863 posiciones

```
In []:
```