DISTRIBUIÇÃO DE TREMORES DE TERRA

marlon - mmd

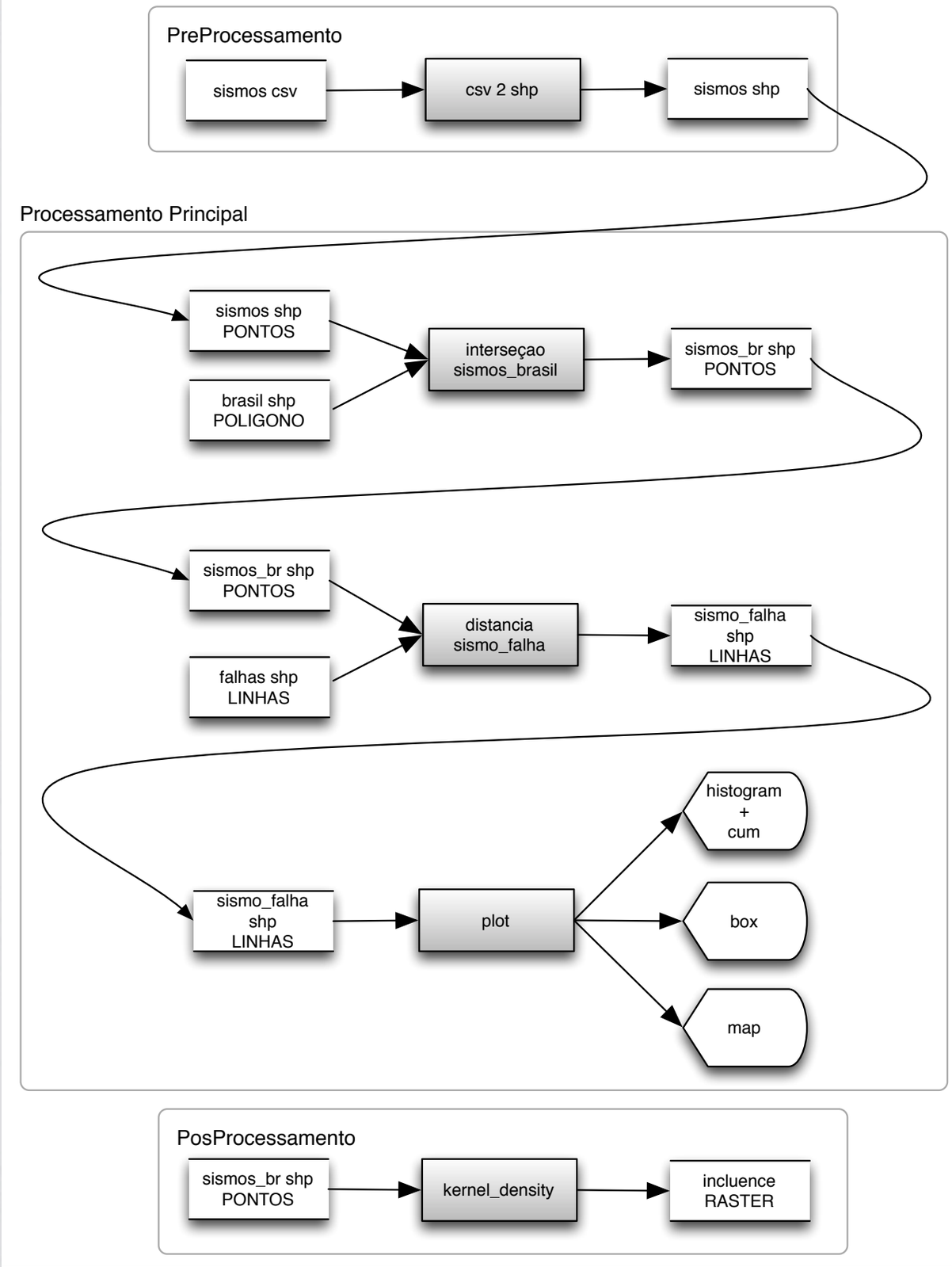
metodologia

* comparar a distribuição de distâncias entre dois conjuntos de sismos (reais e aleatoriamente espaçados) e feições geologicas “recentes” buscando correlações.

tools

* python
* QGIS
* GRASS
* GDAL
* OGR
* MatplotLib

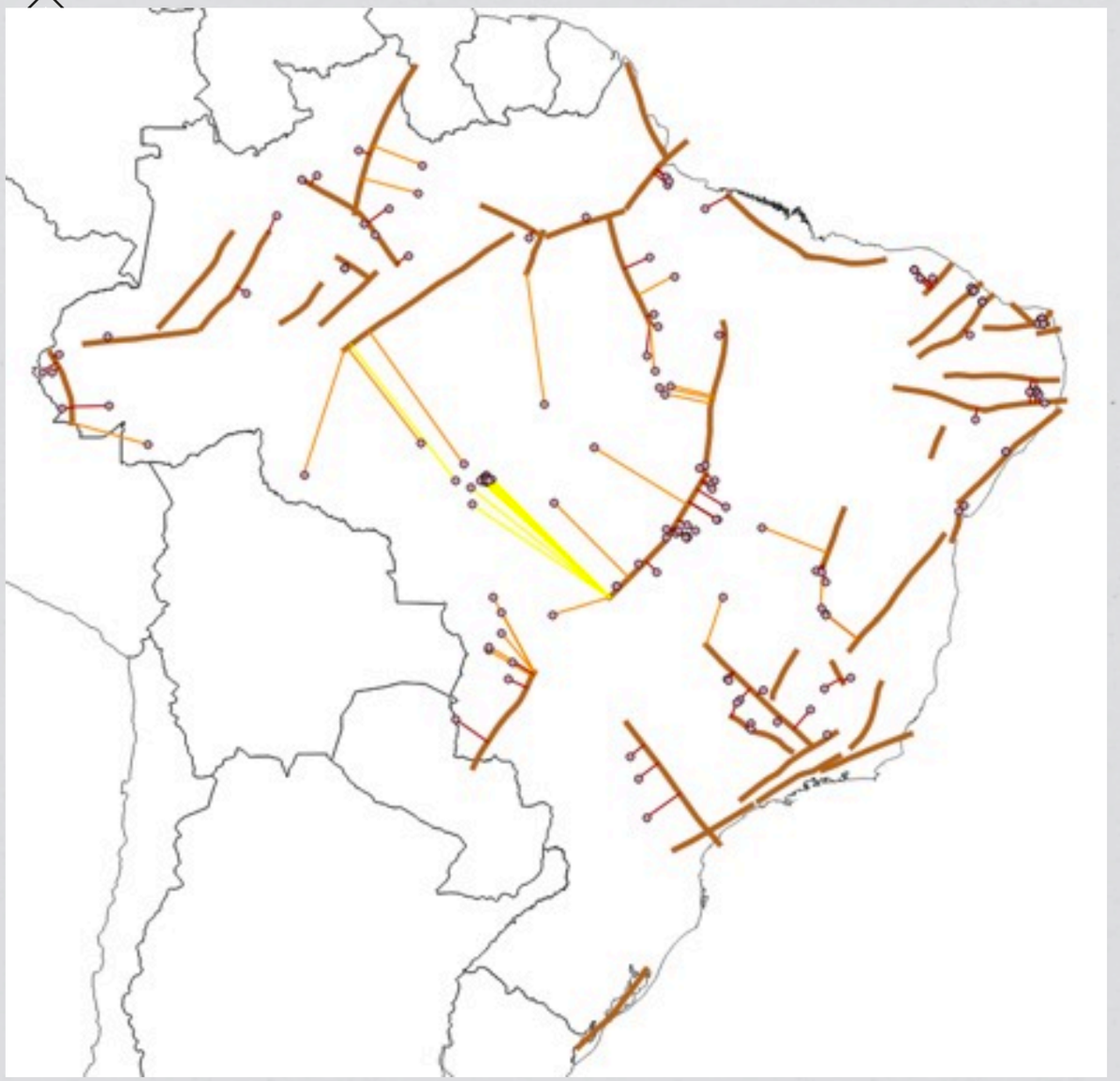
workflow.graffle

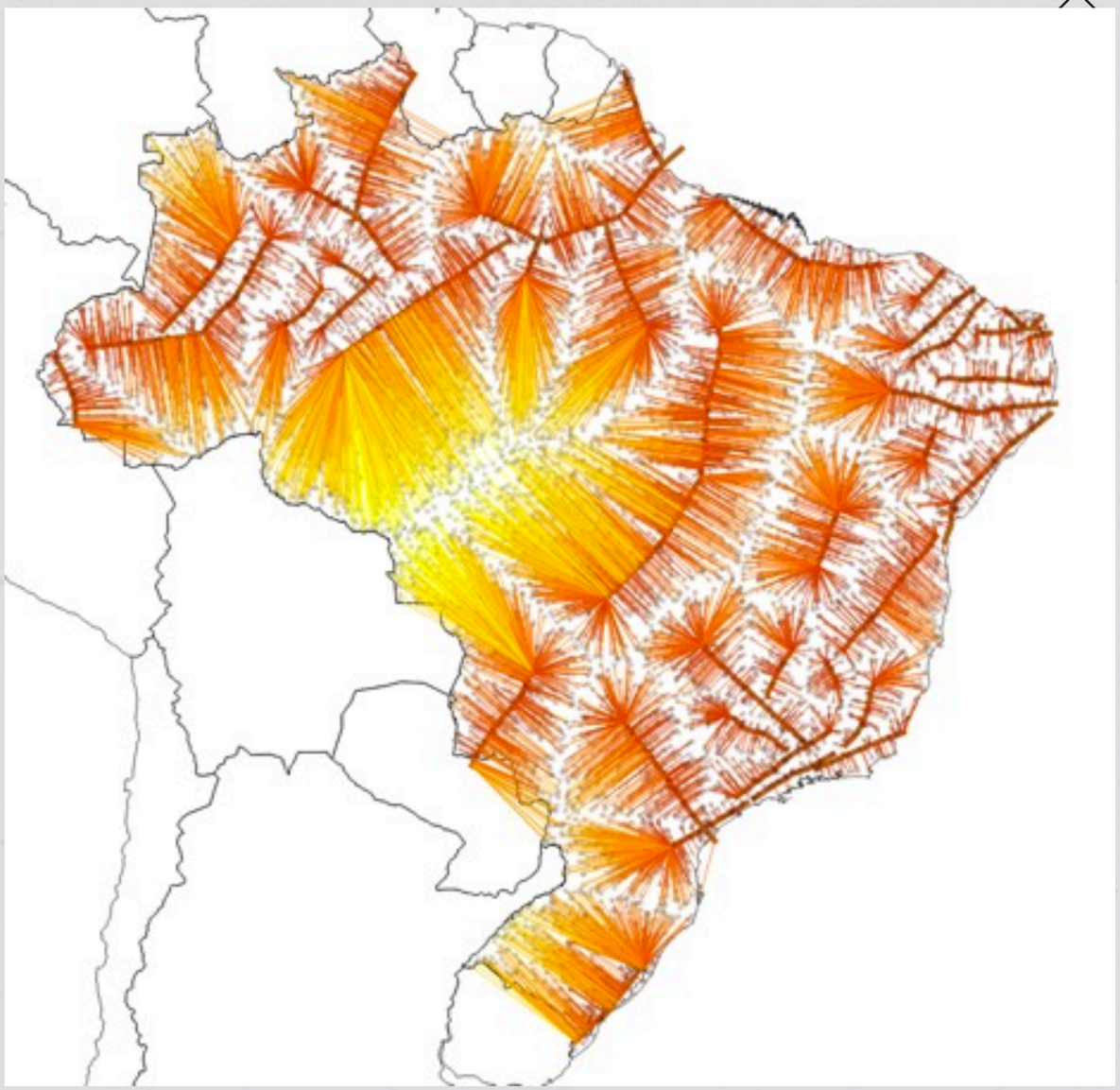


data example

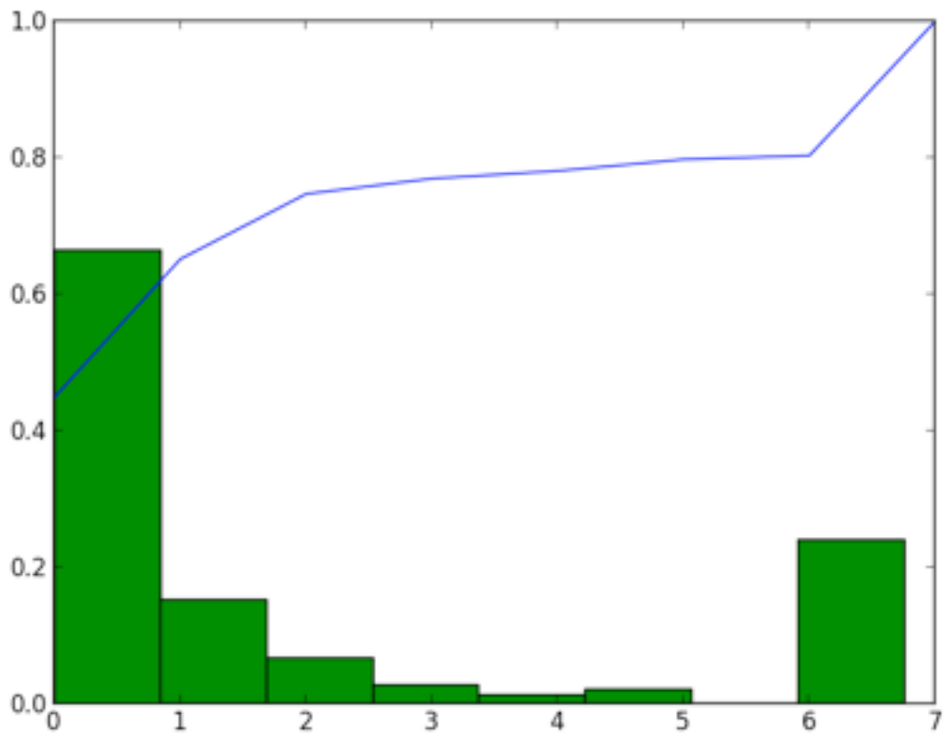
```
"ano","mes","dia","hora","min","seg","lat","lon","dep","uf","n1","mag","n2","s1","s2","n3","s3"
1955,1,31,5,3,6,-12.52,-57.35,30,MT,0,6.2,0,I,-,,SA. TOMBADOR M(PAS)6.8;M(BCI)6.6; relocal.Engdahl(GS)
1955,3,1,1,46,18,-19.84,-36.75,30,ES,0,6.1,0,A,-,,"FTE.VITORIA  (ISS) VITORIA V MM, M(ROTHE)=6; MB(PAS)=6.5"
1963,12,14,21,5,42,-2.30,-61.01,30,AM,45,5.1,0,C,-,,MANAUS        (ISS) RELOCAL.
1964,2,13,11,21,46,-18.06,-56.69,30,MS,5,5.4,0,I,-,,"NW DE MS      RELOCAL., CAMPO GRANDE = V MM"
1967,8,9,7,14,8,-8.45,-73.83,30,AC,42,5.1,0,I,-,,PERU-BRASIL
1968,2,23,14,23,2,-6.09,-38.44,5,CE,0,4.6,2,A,7,84,"PEREIRO      (UFRN,IAG,ISC)"
1968,8,27,5,17,36,-8.90,-72.89,30,AC,26,4.9,0,I,-,,W DO ACRE    (ISC H=50 ?)
1969,11,7,9,28,54,-37.00,-43.80,250,RS,0,5.0,0,I,-,,ATLANTICO    (ISC)
```

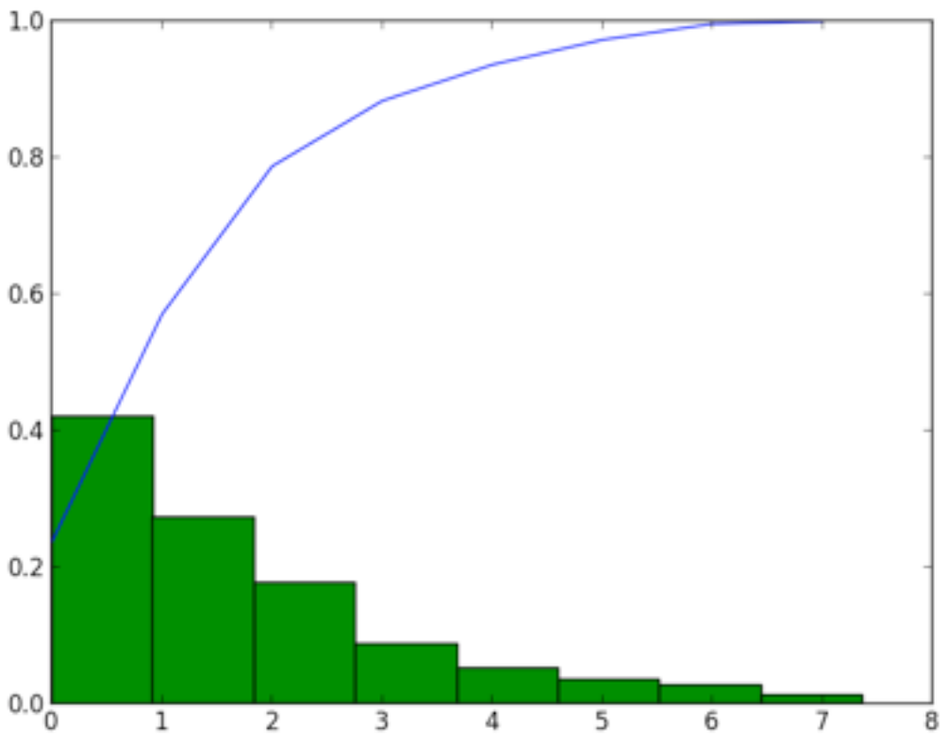
distances(real/random)

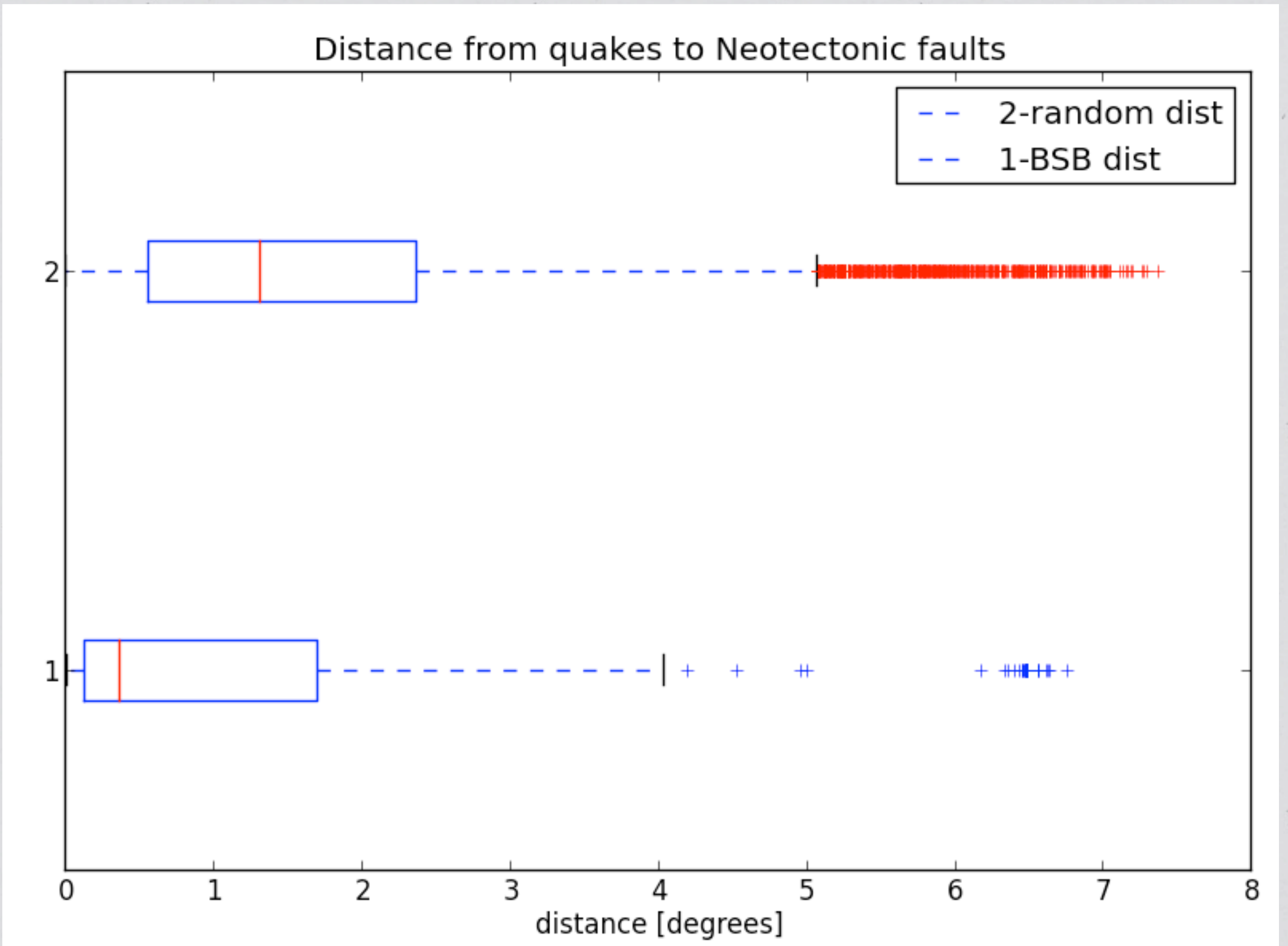




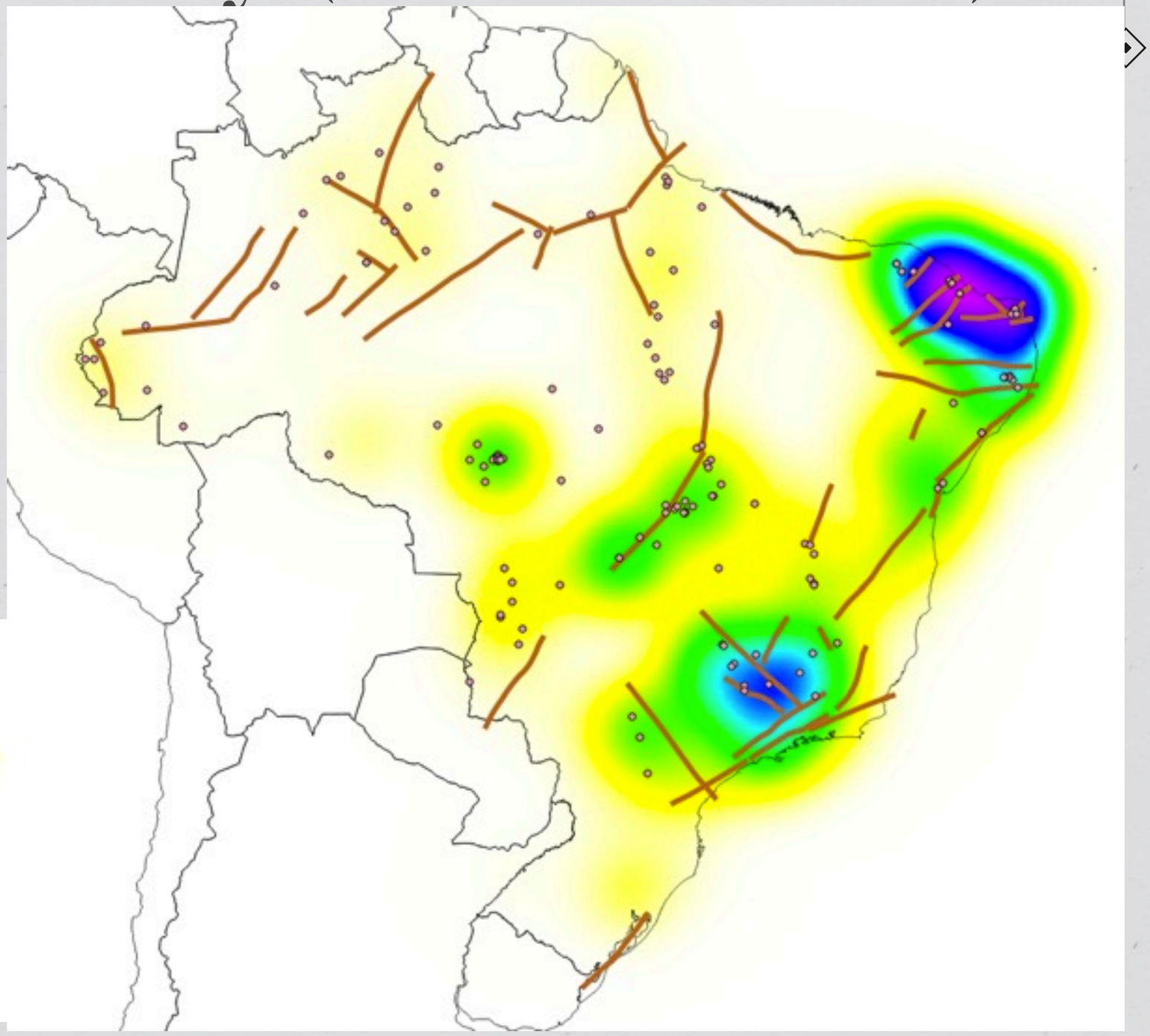
distribuição



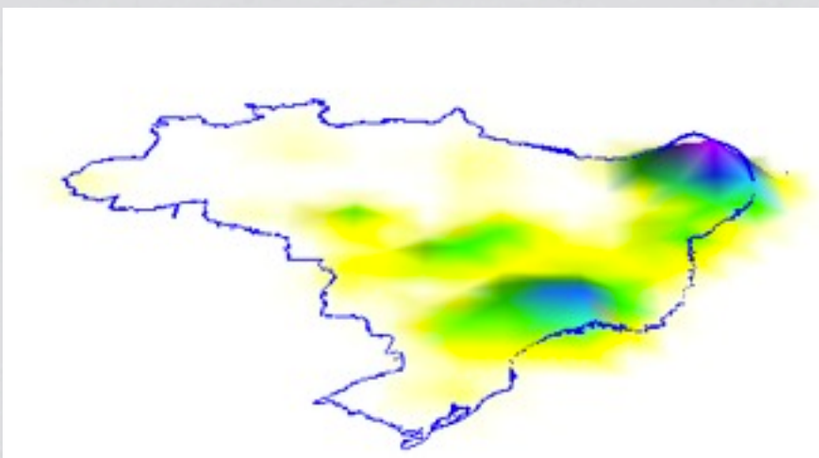



Distance from quakes to Neotectonic faults
2-random dist
1-BSB dist
2
1
0
1
2
3
4
5
6
7
8
distance [degrees]

kernel-density (sismos-reais)



NVIZ-3D



some code

* http://github.com/preinh/MMD_TFinal