

# Supplementary material for: Recent Seismicity on the Kerguelen islands

July 21, 2023

This supplementary material contains a description of the clustering method (Text S1) and 3 figures (S1-S3) that represent the recorded waveforms of the located events belonging to clusters 2 to 4.

**Text S1 - Clustering method** The metric used to cluster events is an Euclidian 2D metric with the first axis  $x$  is the S-P travel time difference in seconds and the second axis  $y$  is given by  $\phi/5$ , with  $\phi$  the azimuth of the events in degrees (with respect to station PAF). The two parameters used by the DBSCAN algorithm are a maximum distance and a minimum number of events. Here the maximum distance between two events for one to be considered as in the neighborhood of the other is set to 0.5 and we need 10 earthquakes within that distance range for these points to be considered as a cluster.

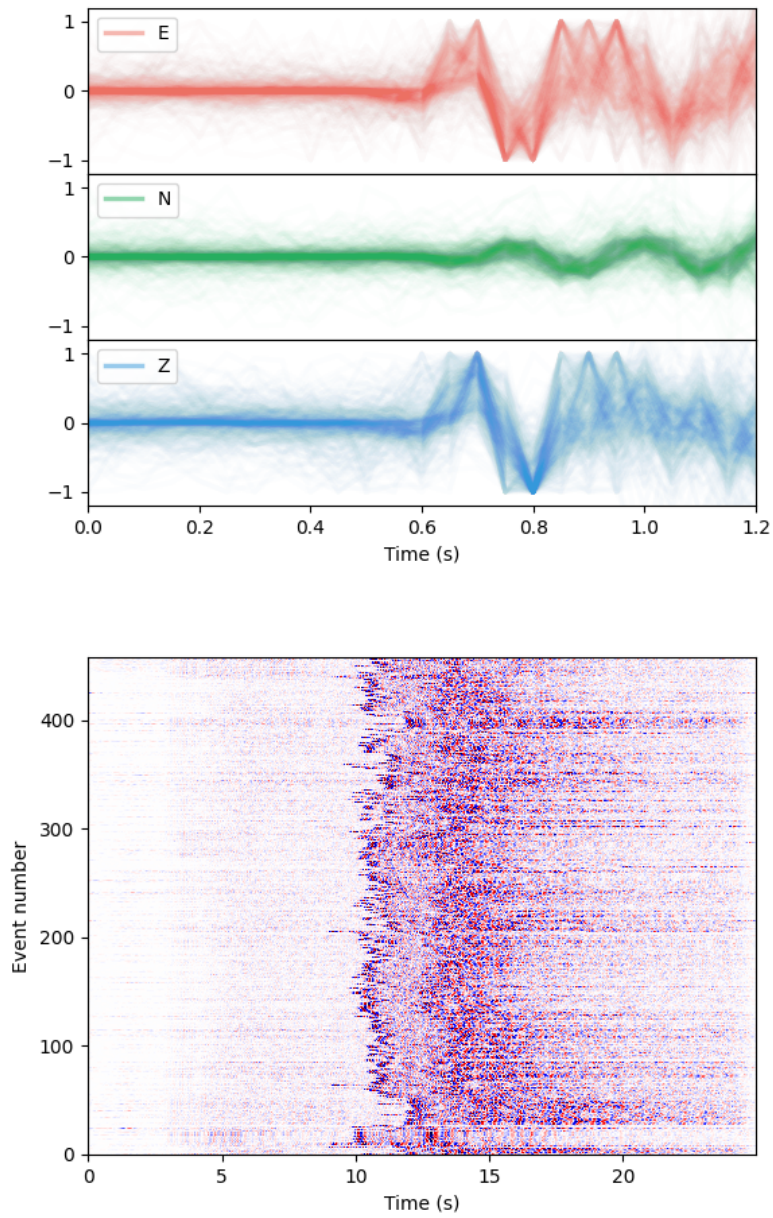


Figure S1: Same legend as in Figure 3 but for events in the cluster 2

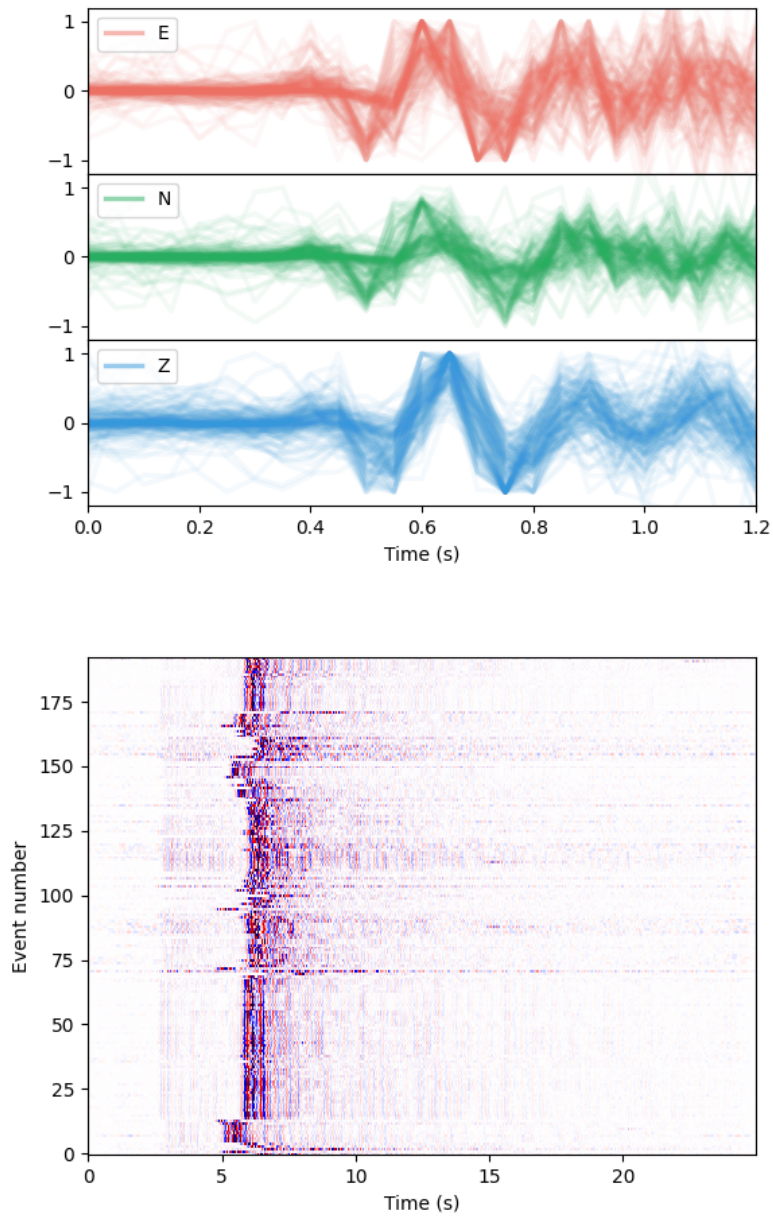


Figure S2: Same legend as in Figure 3 but for events in the cluster 3

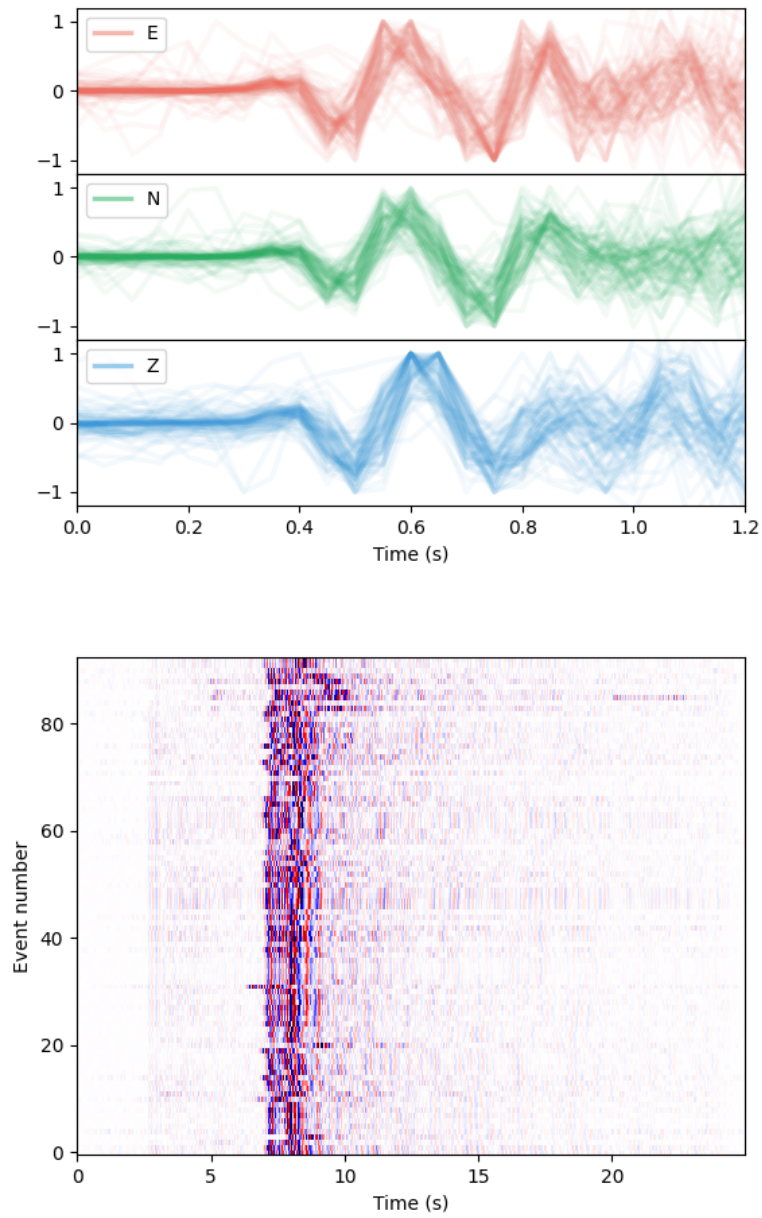


Figure S3: Same legend as in Figure 3 but for events in the cluster 4