



Supplementary material: Characteristics and possible origins of the seismicity in northwestern France

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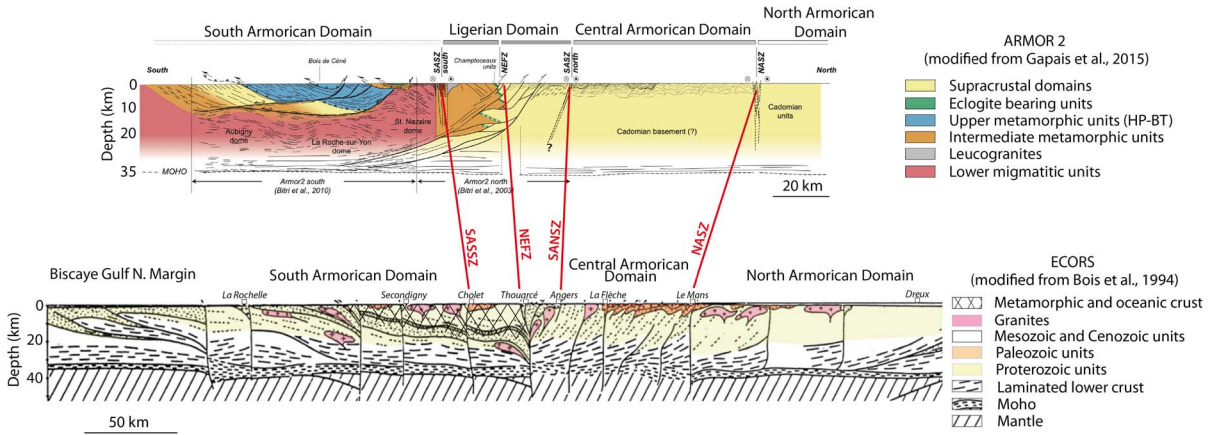
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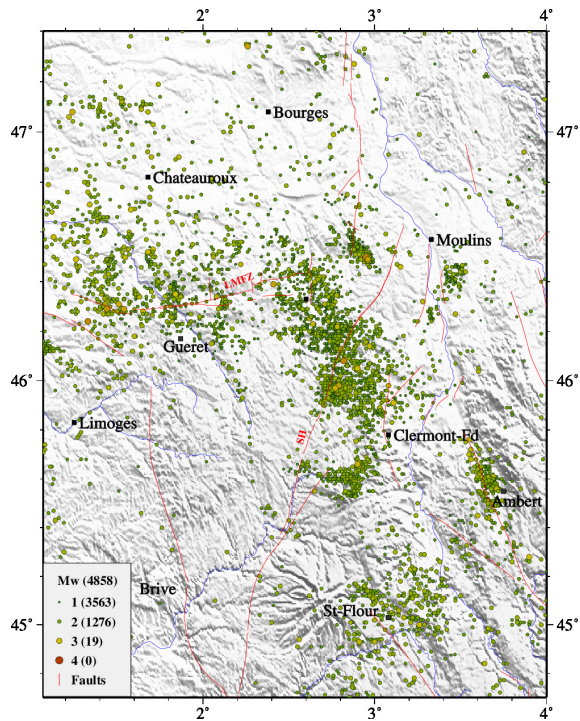
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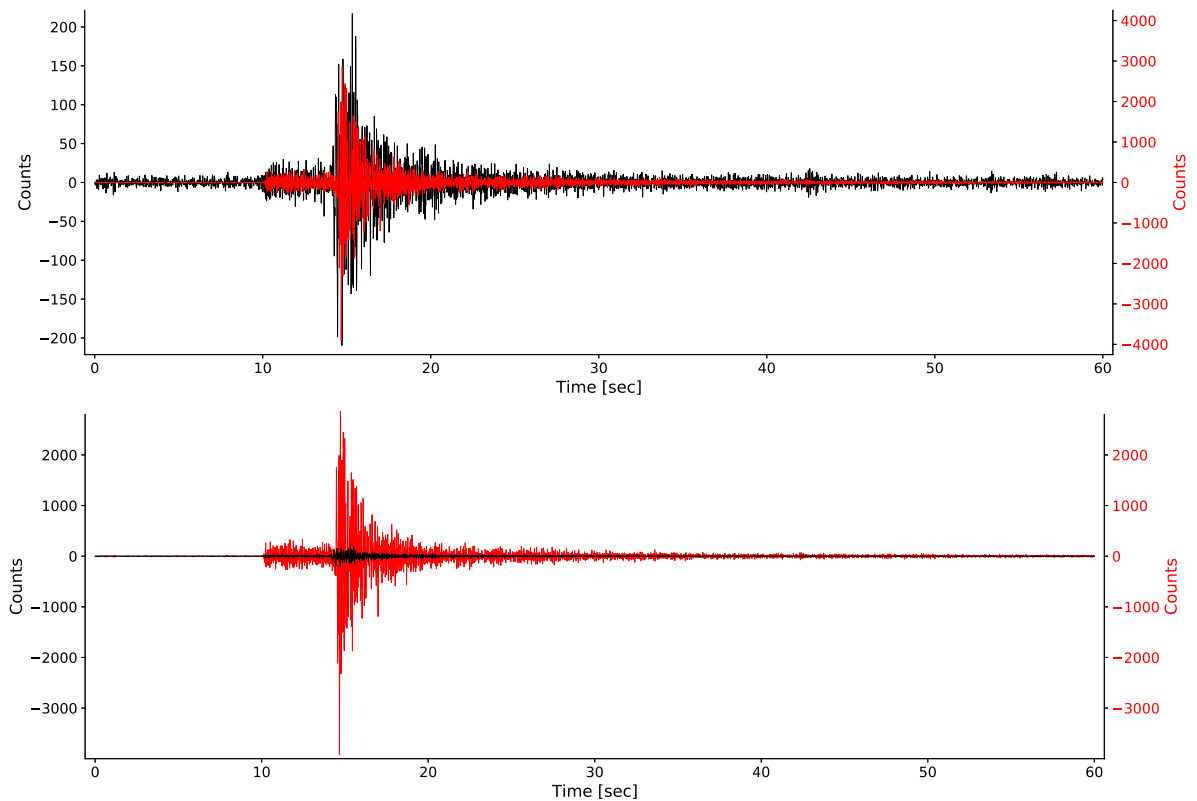
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Supplementary Figure S1. Cross sections deduced and simplified from seismic profiles across Brittany and western France [Bois *et al.*, 1994, ECORS] and [Gapais *et al.*, 2015, ARMOR 2]. The acronyms are the same as in Figure 1.



Supplementary Figure S2. Focus on the instrumental seismicity in the western part of the Massif Central (same dataset as in Figure 3). Plotted faults come from the compilations of Grellet *et al.* [1993] and Jomard *et al.* [2017]. LMFZ and SH stand for La Marche Fault Zone and Sillon Houillier, respectively.



Supplementary Figure S3. Example of low-magnitude earthquake detected using cross-correlation, as described in Section 3.3.2. The black signal is the waveform of the detected earthquake, not present in the catalogs (cross- correlation maximum of 0.256), while the template is plotted in red (North component for both). The seismograms are respectively scaled to their own maxima (top) and to the template max (bottom), in order to show the low energy detected during this process.