

Supplementary materials

For the pre-main shock (Figure S1a) and after-main shock datasets (Figure S1b) we estimated the magnitude of completeness with the MAXC method. A correction factor of +0.2 is considered in order to avoid biased results in the b value estimation. In both datasets the completeness magnitude is defined as $M_c = 1.5$, with $N_{pre} = 94$ events and $N_{aft} = 226$ aftershocks, respectively.

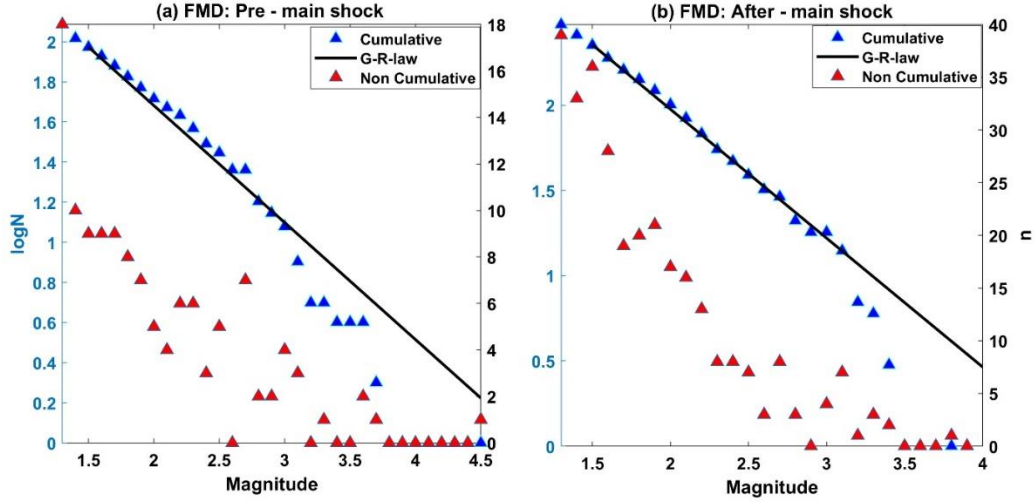


Figure S1. (a) Frequency-Magnitude Distribution (FMD) of the pre-main shock and (b) after-main shock datasets. Blue and red triangles correspond to the cumulative and incremental number of events, respectively. The black line is the GR law with $M_c = 1.5$ for both datasets according to MAXC.

We tested the temporal variations of the b values of different sample sizes with a moving magnitude completeness threshold for the pre-main shock (Figure S2) and the after-main shock (Figure S3) datasets. Even though the number of samples is reduced significantly, especially for the pre-main shock dataset, the main observation of decreasing b values after the $M_w 4.5$ foreshock (dashed-dot black line in Figure S2) compared to the increasing ones just after the main shock (Figure S3) is holding true.

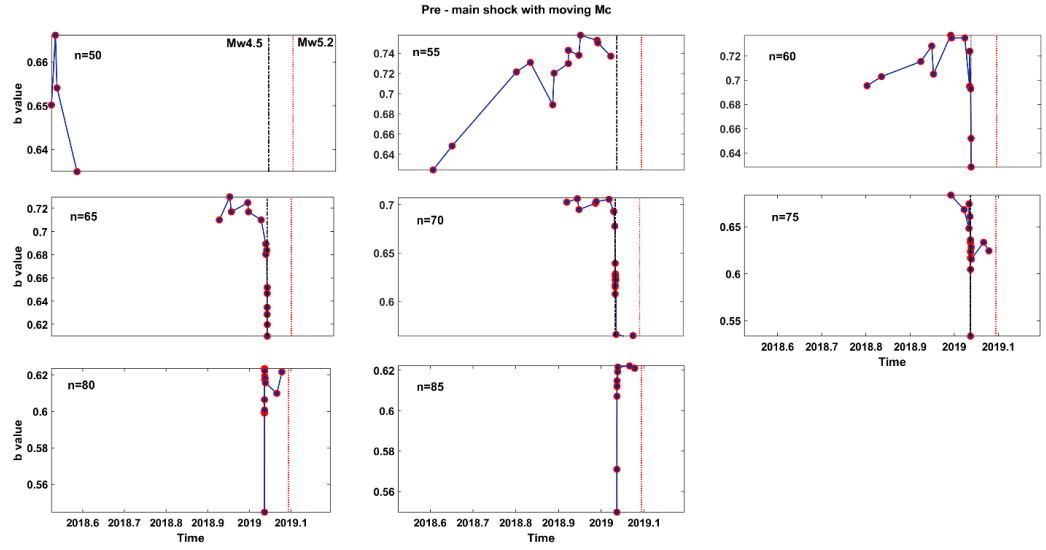


Figure S1 Time-series of the b value of different sample sizes, whose size is written at the left top corner of each box, for the pre-main shock dataset with 94 events. For each sample we re-evaluate the completeness threshold and we plot the b value of the samples with size larger or equal to n_{thr} . Red dotted line corresponds to the main shock occurrence time, and the dashed-dot black line to the foreshock occurrence time. Red-blue dots are plotted at the occurrence time of the last event in each pre-main shock sample.

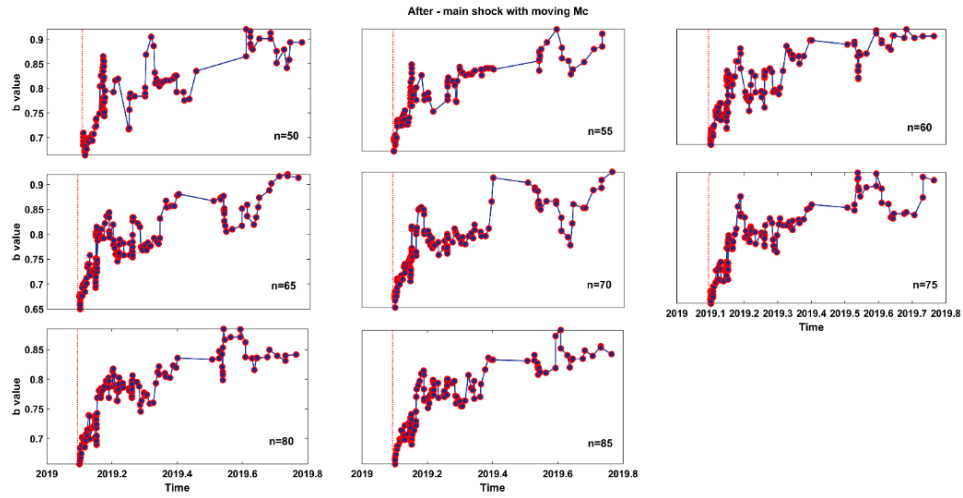


Figure S2 Same as in Figure S1, for the after-main shock dataset with 226 aftershocks.