Distribution of volcanic earthquake recurrence intervals

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We analyze the distribution of volcanic earthquake recurrence intervals in the Vesuvio, Campi Flegrei and Hawaii regions and compare it with tectonic recurrence rates in California. We find that the distribution behaviour is similar for volcanic and tectonic seismic events. In both cases the recurrence interval distributions collapse onto the same master curve, if time is rescaled by the average occurrence rate.

This implies that both phenomena have the same temporal organization, and it is possible to adopt for volcanic areas the same occurrence models used for tectonic regions.