Study of Gutenberg-Richter coefficients considering time evolution for different mexican seismic regions

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In the present work, we propose a division of the Mexican Pacific coast and we study the time evolution of the Gutenberg-Richter coefficients ("a" and "b" values) along the 2006-2016 period by means of the sliding time window method. We observed that the sequences of a and b values obtained, are positively correlated as it must be, because otherwise it would represent a seismic dynamics incompatible with a self-organized critical system "the earth crust". Furthermore, we analyze the variation of the modal value "a/b" showing be a better estimator of seismic activity that only a or b parameters. Finally, we perform size window variation analysis to keep constant the seismic energy released by N-events into the time window.