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building a ground motion data base to improve the seismic hazard assessment In Bolivia (Plurinational State of)

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Seismic hazard assessment for any region in the world has become a very serious and difficult task for seismologists, civil engineers and decision makers. Probabilistic hazard studies are conducted at the Observatorio San Calixto (PSHBO-2019) to estimate the maximum peak ground acceleration integrating all available variables, however no strong motion time-series (waveform) were applied due to the limited equipment installed in the country. To solve this issue, since 2016 we started to compile and to convert the velocity frames from our IMS stations (LPAZ and SIV) and temporal seismic network installed in the country to have acceleration and displacement traces. These waveforms were pre and post treated to obtain the pseudo acceleration, velocity and displacement spectrum and they were tested with regional ground motion prediction equations in order to validate them for local use. A set of 80 earthquakes are presented that will contribute to the improvement of PSHBO-2019.

Promotional text

The new database proposed ill help to improve and to categorize the different zones with their own seismic design spectrum to improve the seismic hazard in Bolivia

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