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Synthetic Catalog Simulation in Low Seismicity Regions Based on Monte Carlo Method (Case Study of Naïen Zone)

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SUMMARY

A Monte Carlo method is a technique that involves using random numbers and probability to solve problems. In this method, we fix a probabilistic model which is compatible with problem or simulate the problem itself. In both state, the random parameters are built by some specific rules and the process has been done over and over. Then we analyze the problem statistically. As mentioned, Monte Carlo method uses in lots of engineering science fields. One of the uses of Monte Carlo method is in the low seismicity regions for seismic hazard analysis and catalog simulation

Synthetic catalog simulation in low seismicity regions based on Monte Carlo method (Case study of Naïen Zone)

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Abstract

A Monte Carlo method is a technique that involves using random numbers and probability to solve problems. In this method, we fix a probabilistic model which is compatible with problem or simulate the problem itself. In both state, the random parameters are built by some specific rules and the process has been done over and over. Then we analyze the problem statistically. As mentioned, Monte Carlo method uses in lots of engineering science fields. One of the uses of Monte Carlo method is in the low seismicity regions for seismic hazard analysis and catalog simulation

Key words: Monte Carlo, Catalog simulation, Seismicity, Seismic hazard analysis