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Seismic studies at Ceboruco Volcano

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The Ceboruco volcano is the largest (2280 m.a.s.l) of several volcanoes along the Tepic-Zacoalco rift zone in Nayarit state (Mexico). During the last 1000 years, this volcano had effusive-explosive episodes with eight eruptions providing an average of one eruption each 125 years. Since the last eruption occurred in 1870, 148 years ago, a new eruption likelihood is really high and dangerous due to nearby population centers, important roads and lifelines that traverse the volcano's slopes. This hazards indicates the importance of monitoring the seismicity associated with the Ceboruco volcano whose ongoing activity is evidenced by fumaroles and earthquakes. As part of CeMIEgeo project a temporal seismic network with 25 stations with 3D sensors was deployed in an area of 16 km x 16 km, with one station every 2.5-3 km, recording from November 2016 to July 2017 In this study. The objective of this project is to study the local seismicity and the structure of the volcano. We present the first results obtained from the data generated by this seismic network.