

Repeating earthquake activity off Miyagi Prefecture triggered by the 2011 Tohoku-oki earthquake

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A remarkable repeating earthquake activity off Miyagi Prefecture triggered by the 2011 Tohoku-oki earthquake was analyzed in detail. The epicenters of repeating earthquakes distributed in a very small area with a diameter of about 1km, centered at 38°38'N and 141°54'E, and with depth 46-49km. The recurrence intervals were about 20 days in the initial period then gradually changed longer, about 100 days in 2018. Magnitude of earthquake was about 4.0 in the initial period then gradually changed smaller, about 3.5 in 2018. For this activity, based on its repeating regularity, mid-term prediction was tried and obtained good result for a certain period.

Keywords: repeating earthquakes, 2011 Tohoku-oki earthquake, mid-term earthquake prediction

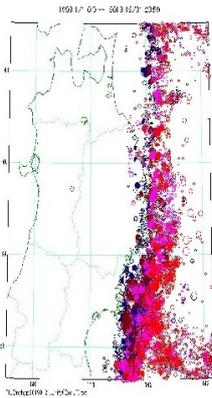


図1. 震央分布図

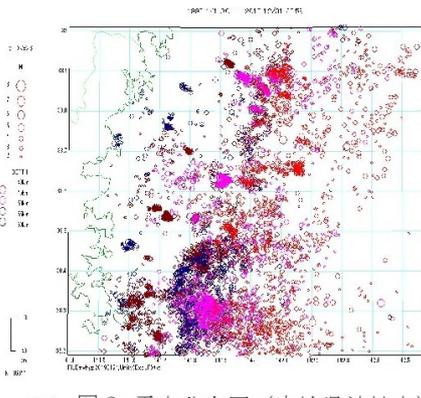


図2. 震央分布図 (宮城県沖拡大)

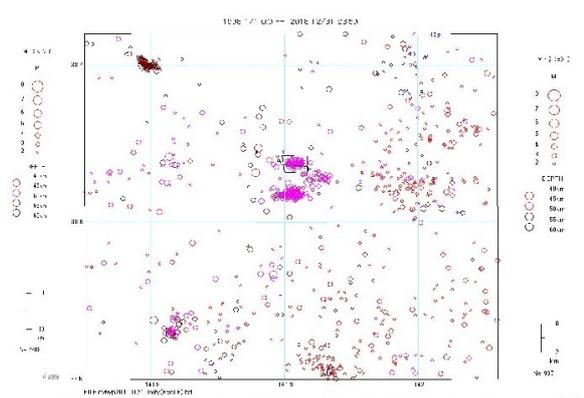


図3. 震央分布図 (解析対象の付近を拡大)

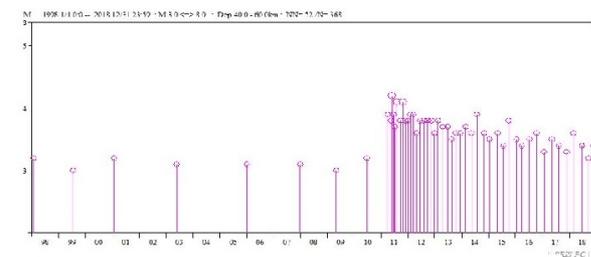


図5. 対象とする繰り返し地震活動のMT図

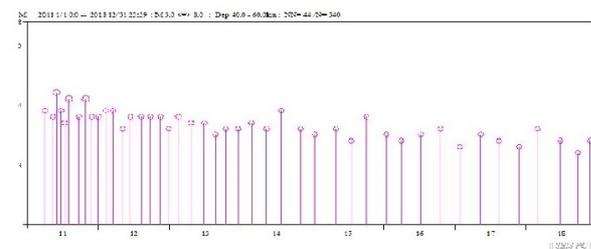


図6. 対象とする繰り返し地震活動のMT図 (2011年以降を拡大)

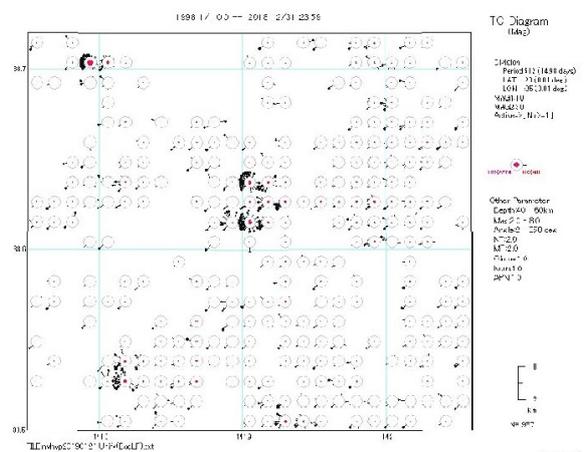


図4. 図3に対応する時間円表示図 (TC-M図)