Seismic activities of eastern Japan increased by the 2011 off the Pacific coast of Tohoku Earthquake

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The 2011 off the Pacific coast of Tohoku Earthquake (Mw9.0) occurred on March 11, 2011 off eastern Tohoku, Japan. After the main shock, seismic activities increased in many regions of eastern Japan far from the aftershock region. Earthquakes with a seismic intensity of a lower 5 or greater was observed in the eastern part of Shizuoka prefecture, the border between Nagano and Niigata prefectures, Akita prefecture, and so on. Small earthquakes also clustered after the main shock in several regions along the volcanic front.

Many triggered seismic activities in regions far from main shock was reported, which thought to be caused by dynamic stress change related to arrival of seismic wave and static stress change related to faulting of main shock. In the meeting, I will present the relationship between the seismic activities of eastern Japan increased after the 2011 off the Pacific coast of Tohoku Earthquake and the static stress change caused by the main shock.

Keywords: The 2011 off the Pacific coast of Tohoku Earthquake, Seismic activity, Coulomb Failure Function, Stress changes