

The observation of the Seismic dynamo effect at Wakuya

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Recently, Honkura et al. (2000, 2002, 2004), Matsushima et al. (2002) and Ujihara et al. (2004) observed co-seismic electromagnetic variations and they proposed a hypothesis called 'seismic dynamo effect'. The hypothesis is based on the electromotive force, which is generated at depth by the seismic vibration of the conducting earth relative to the main magnetic field. It can potentially induce electromagnetic field prior to the seismic wave arrival and will be important for earthquake prediction or disaster mitigations. However, regarding the seismic dynamo effect, more detailed and quantitative discussions are necessary to verify the hypothesis.

Now our group set seismometer at Wakuya MT-site to observe co-seismic variations at big earthquake. In this meeting we introduce some examples of recent observations.