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Room:Convention Hall

Time:May 27 14:15-16:15

## Discharge changes of geothermal wells related to the geologic structure and shocks of the 2011 large earthquake

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Water level and its temperature are changed at some geothermal wells situated in Yamagata, southern Fukushima and northern Ibaraki Prefectures just after the 2011 off the Pacific coast of Tohoku Earthquake.

Such change of geothermal wells occurred in fractures by large earthquake is known at previous large earthquakes.

Water level and its temperature increase when the secondary stress by a deformation of the surface of the crust by the quake effects compressional to the fractures, and they decrease when the secondary stress effects relatively tensional to the fractures.

Change of water level and its temperature at the 2011 off the Pacific coast of Tohoku Earthquake should be caused by the secondary stress change to the fractures bearing geothermal wells.

Keywords: discharge changes, geothermal well, fracture system, stress change