

## Objective detection and catalog of short-term SSE

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Geological Survey of Japan (GSJ), National Institute of Advanced Industrial Science and Technology (AIST) constructed integrated observatories in and around Shikoku, Kii Peninsula and Tokai. In these observatories, we are observing groundwater, strain, tilt and earthquake. In addition to these data, using the tilt data of National Research Institute for Earth Science and Disaster Prevention (NIED) Hi-net and strain data of Japan Meteorological Agency (JMA), we are monitoring short-term slow slip events (SSE). At present, the occurrence of short-term SSE is determined by visual inspection with reference to the tremor. Therefore, it is considered that there is oversight of the short-term SSE.

Itaba *et al.* (2012) developed an objective detection method of tectonic crustal movement using redundant components of borehole strainmeter, and shown that it is effective for detection of short-term SSE in the Kii Peninsula. So, in this study, after tuning this method, we estimated the dislocation model of short-term SSE that detected tectonic crustal movement in more than one observatory.

In this presentation, we will introduce the detection results in some areas, the dislocation model and features of short-term SSE, and initiatives toward short-term SSE catalog.

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