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Room:Convention Hall

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## Improvement of detection level using composite of strain changes

Kazuki Miyaoka<sup>1\*</sup>, Hisao Kimura<sup>1</sup>, Takashi Yokota<sup>1</sup>, Kazuhiro Kimura<sup>2</sup>

<sup>1</sup>Japan Meteorological Agency, <sup>2</sup>Meteorological Research Institute

Japan Meteorological Agency has installed strainmeters in Tokai region to detect precursors of the major interplate earthquake, so-called 'Tokai Earthquake'. Several researches expect that the slow slip event, pre-slip, is observed on the plate boundary before Tokai Earthquake occurs.

We propose the new method to improve the detection level of strainmeters by using composite of strain changes. It is the method that strain data are stacked after their polarities are arranged to improve S/N by amplifying signals.

We examined the past slow slip events (SSEs) and were able to detect them at an early stage. In addition, we succeeded to detect the long-term SSE in Tokai region from 2000 to 2005 and SSE in Boso peninsula in August 2007, which have not been thought it was detected by strainmeters.