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SSS030-P06

Room:Convention Hall

Time:May 24 10:30-13:00

## Groundwater level changes associated with the dynamic strain variations

Yasuhiro Asai<sup>1\*</sup>

<sup>1</sup>TRIES, ADEP

From June 2006 to January 2010, groundwater level changes associated with the dynamic strain variations have been repeatedly observed at the Shizubora crustal activity borehole observatory (SN-3, SN-1 and 97FT-01 wells) in the Tono area, Gifu prefecture, central Japan.

We investigated the relationship between the peak amplitude of co-seismic groundwater level changes (at SN-3 and SN-1) and peak-to-peak amplitude of dynamic strain variations (at 97FT-01), and found that the co-seismic groundwater level changes were caused by dynamic strain variation of maximum shear strain with peak-to-peak amplitudes above a threshold of approximately  $2.71 \times 10^{-7}$  -  $3.65 \times 10^{-7}$  strain in SN-3, and  $4.13 \times 10^{-7}$  -  $6.17 \times 10^{-7}$  strain in SN-1.

Keywords: Co-seismic groundwater level changes, dynamic strain variation, Ishii type borehole strain meter