

## Temporal and spatial changes of annual variation pattern of GEONET coordinate data

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In order to investigate characteristic of annual variation of coordinate data obtained from the GSI's nationwide GPS observation network (GEONET), coefficients of linear-, annual- and semiannual terms of fitting curve to the data were evaluated from January 1998 to December 1999 (Period 1) and from November 2000 to November 2001 (Period 2), respectively.

Differences of evaluated coefficients (Period 2 - Period 1) change uniformly in the network as those depend linearly on both latitude and longitude, and change rates by the distance are  $1\text{--}2 \times 10^{-9}$ . Evaluated coefficients themselves also include the uniform components of order of  $10^{-9}$ , spatial distribution of residuals are similar each other in two period after removal of the uniform components.

Considering the systematical characteristic, the uniform component seems to be rather artificial phenomenon than actual crustal deformation. It may be that the data used in the analysis has inconsistency.