

Seasonal Variation of Baseline Length Changes Calculated from GEONET Data

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It is reported that seasonal variation can be seen in the coordinates values and/or baseline length calculated from GEONET data. We investigated the characteristics of the variation using all the GEONET baseline length data, and find that the seasonal variation can be observed in almost all the baselines. We also find that the most baselines expand in summer, and contract in winter. As a possible interpretation of the variation in Tohoku district, Heki argues that snow loading causes the contraction in winter and melting of the snow causes the expansion in summer. This interpretation can possibly be expanded for the other area by replacing the snow loading with the one by precipitation and/or groundwater.