

Periodic errors caused season detected by leveling survey - leveling at intervals of two weeks between Kakegawa and Kikugawa -

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The Geographical Survey Institute of Japan (GSI) has repeated the precise leveling from Kakegawa to Omaezaki since 1981. The data is seasonally. It is obvious that the seasonally time series data has periodic errors caused season (Tazima et al., 1992; Imariire, 2004). On the other hand, Shizuoka Prefecture has repeated the precise leveling once every two weeks in the Kikugawa region. The Kikugawa region is located between Kakegawa and Omaezaki. The leveling survey is used the road stud for the turning plate. In order to detect the periodic pattern in the Kikugawa region, I compiled the leveling data carried out in 2006, reported by Shizuoka Prefecture.

For the seasonally leveling data in each survey, I carry out a correction by the least square method so as to minimize the sum of observation errors and describe all periodic phenomena in terms of the sine of an angle.

I will present the result of this analysis.