

Rainfall correction of strainmeter data in consideration of the flow from the upper reaches (2)

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Kimura et al. (2015) showed that the flow from the upper reaches was important for the rainfall correction of the strainmeter data at the Tokai-Region. Therefore, Meteorological Research Institute (MRI) started the research by several method about the rainfall correction of the strainmeter in consideration of the flow from the upper reaches (Kimura, 2015).

The Shimada-Kawane station located near the Minari-River is a high possibility that is influenced by the flow from the upper reaches. MRI installed an ultrasonic water gage at the Minari-River examine improvement of the rainfall correction of the strainmeter data at this station. The continuous observation of the river water level was carried out from March 2015 to December 2016.

We tried several ways of using the observation data of this river water level as input values of the tank model directly, but none of them worked. The reason for this is considered to be that the value of the peak of the river water level is too large relative to the amount of precipitation and has a weight and it is difficult to handle it as input data of the tank model like precipitation data.

As another method, we tried using this tank model and precipitation data observed at the Shimada-Kawane station whether this river water level data can be reproduced. As a result, we found that the residual between the observed value and the calculated value is related to the residual of the rainfall correction of the strainmeter data. Although no method has been found yet, it is suggested that there is a possibility that the rainfall correction of the strainmeter data can be improved from the river water level observation.

Keywords: strainmeter, rainfall correction, the flow from the upper

