Rainfall correction of the Extensometer at Matsushiro

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Japan Meteorological Agency (JMA) installed the quartz tube extensometer of 100m in the tunnel at Matsushiro (Nagano city, Japan). This extensometer data is stable for several decades, but is influenced by the rainfall. Nishimae and Wakui (1996) tried the rainfall correction using a tank model for N-S component of this extensometer. They successfully estimated parameters of the model by trial and error.
We estimate parameters of the tank model by Shuffled Complex Evolution method developed at the University of Arizona (SCE-UA method). The parameters estimated are similar each other.
In addition, we introduce the rainfall correction by the tank model of E-W component of this extensometer.

Keywords: Extensometer, rainfall correction, shuffled complex evolution method developed at the university of arizona

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