The wind velocity correction of the precipitation to use for the rainfall correction of the volumetric strainmeter

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The rainfall correction of the volumetric strainmeter has the sensitivity that can judge quality of the precipitation data. (Kimura et al., 2013) In the observation of the rain gauge, it is well known that a capture rate of the rainfall decline at the time of a strong wind. We try the rainfall correction of the volumetric strainmeter in consideration of wind velocity dependence. As a result, the strainmeters at the slope of the big mountain or near the river where had a long basin area is improved the rainfall correction. This is not influence of the capture rate of the rain gauges, it is caused by the fact that altitude dependence of the precipitation is remarkable as a strong wind.

For the rainfall correction of the crustal movement data such as the volumetric strainmeter, it is necessary to consider it about the rainfall at high altitudes in addition to the precipitation around the observation station.

Keywords: strainmeter, rainfall correction, wind velocity, altitude dependence of the precipitation