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Supplementary material for "Defining the sensitivity of cosmic ray muons to groundwater storage changes"

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1. Introduction

This supplementary material provides the muon data set used in our work, collected over 365 days by our muon detector at the Mont Terri Underground Rock Laboratory (URL) between October 2016 and February 2018. The data set is presented in Table S1. It contains the average muon rate, R, along with its deviation from the mean, $\frac{\Delta R}{\langle R \rangle}$, and the corrected deviation, $\left(\frac{\Delta R}{\langle R \rangle}\right)_{\text{corrected}}$, for the high-density (HD) region, the low-density (LD) region, and the combined HD and LD regions. Additionally, we present the time series of the deviation from the mean of the average effective temperature, $\frac{\Delta T_{\text{eff}}}{\langle T_{\text{eff}} \rangle}$, the deviation from the mean of the weighted volumetric soil water, $\frac{\Delta v}{\langle v \rangle}$, the stream flow of the Doubs river, the rainfall at the Montenol station and the opacity variations, $\Delta\rho$. The uncertainties associated with these parameters are represented by $\sigma(R)$, $\sigma\left(\frac{\Delta R}{\langle R \rangle}\right)$, $\sigma\left(\left(\frac{\Delta R}{\langle R \rangle}\right)_{\text{corrected}}\right)$, $\sigma\left(\frac{\Delta T_{\text{eff}}}{\langle T_{\text{eff}} \rangle}\right)$, $\sigma\left(\frac{\Delta v}{\langle v \rangle}\right)$ and $\sigma\left(\Delta\rho\right)$, respectively.

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