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High frequency study of nutrient fluxes variability in a small river

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We consider here high frequency nutrient fluxes recorded during two one month duration campaigns in 2010 and 2011 in the Wimereux river (North of France). During these campaigns, the river flow is recorded every 10 minutes, simultaneously with NO_3, NH4, PO4 and COT data. High frequency fluxes are computed.

We first compare these high frequency estimations with low frequency (1 measurement every month) estimations in order to quantify the error in the latter. We also consider the pdf of the ratio of high frequency fluxes ("true" values) to low frequency estimation. We finally consider the scaling properties of the fluctuations of the nutrient data, flow data, and of the fluxes.
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