



Processing and quality control of eddy covariance measurements

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Micrometeorological measurements of energy exchange processes at the surface are often not able to close the energy balance equation. The fact that the assumed errors in measurements of net radiation and soil heat flux are not sufficient to close the energy balance motivated us to address the issue of determining sensible and latent heat fluxes based on eddy covariance measurements. The results of sonic intercomparisons are presented to show the possible problems caused by the instrumentation. To test the effect of different corrections on the results for turbulent fluxes, an experimental software package was developed including automatic quality tests. This analysis shows that the instrumentation and methodology has a big impact on the results of turbulent heat fluxes. It can contribute to a better understanding of the reasons for energy balance closure problems.